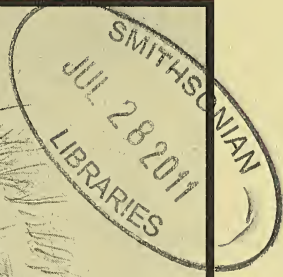


ANIMAL KEEPERS' FORUM

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June 2011

The Journal of the American Association of Zoo Keepers, Inc.

AKF Managing Editor: Susan D. Chan • **Associate Editors:** Becky Richendollar, North Carolina Zoo • Mark de Denus, Winnipeg, MB • **Enrichment Options Column Coordinator:** Julie Hartell-DeNardo, Oakland Zoo and Ric Kotarsky, Tulsa Zoo & Living Museum • **Legislative/Conservation Outlook Column Co-Editors:** Becky Richendollar, North Carolina Zoo and Greg McKinney, Philadelphia, PA • **ATC Column Co-Editors:** Angela Binney, Disney's Animal Kingdom; Kim Kezer, Zoo New England; Jay Pratte, Omaha's Henry Doorly Zoo • **Conservation Station Coordinator:** Amanda Kamradt, New England AAZK Chapter • **Proofreader:** Barbara Manspeaker, AAZK Administrative Office.

Animal Keepers' Forum is published monthly by the American Association of Zoo Keepers, Inc., 3601 S.W. 29th Street, Suite 133, Topeka, KS 66614-2054. Ten dollars of each membership fee goes toward the annual publication costs of Animal Keepers' Forum. Postage paid at Topeka, KS.

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AAZK Administrative Secretary: Barbara Manspeaker, AAZK, Inc., Topeka, KS

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37th Anniversary - 1974 - 2011

MISSION STATEMENT

(Revised April 2009)

American Association of Zoo Keepers, Inc.

The American Association of Zoo Keepers, Inc. exists to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

This month's cover features Cape Vulture (Gyps coprotheres) which is also known as the Cape Griffon Vulture. It was drawn by Jenyva Turner, a keeper in the African Rift Valley exhibit at the Cheyenne Mountain Zoo, Colorado Springs, CO. Cape Griffons are arguably the largest of all the African Vultures, being similar in size to the Lappet-Faced vulture. Although Lappet-Faced vultures appear more aggressive, they are easily dominated by the powerful Cape Griffon. This bird is found throughout southern Africa, but its distribution is becoming patchy due to excessive impacts of inadvertent poisoning. Like other members of the Griffon family, the Cape Griffon utters a combination of high-pitched, hoarse squeals. They are particularly vocal when feeding, defending their food noisily from smaller vultures as well as each other. Feeding solely on dead animals, this species' diet consists of nothing smaller than antelope. They are invariably the dominant figure at feeding sites, capable of holding out against jackals and even warthogs. Reaching sexual maturity no earlier than five years, the Vulture is extremely social breeding in colonies, on cliff faces. The female lays a single egg, and shares the responsibilities of incubation and feeding with her lifelong mate. Not only is the Cape Griffon persecuted by farmers, but the body parts of this culturally significant bird are commonly harvested for use in "muti," or witch-doctor medicine. Among the many myths surrounding the use of vulture parts is the consumption of the bird's brain. The vulture is believed to have clairvoyant properties which explain their ability to find carcasses almost immediately after their death. The individual who consumes the brain supposedly receives the same clairvoyance. Also, possessing the dried foot of a Cape Griffon vulture is believed to bring luck in betting. It is officially listed as "vulnerable," a status similar to "threatened." This species suffers from secondary poisoning, disturbance of nesting sites, and electrocution. There is only one remaining colony in Namibia, consisting of seven to eleven individuals. Recognized as the most endangered species in the country, actions are being taken to introduce captive-bred Cape Griffons from South Africa to bring the population back to a sustainable level. Thanks, Jenyva!

Source: <http://vultures.homestead.com/Cape.html>

Articles sent to Animal Keepers' Forum will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for AKF. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 785-273-9149; FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com< If you have questions about submission guidelines, please contact the Editor. Submission guidelines are also found in the Members Only section of the AAZK website.

**Deadline for each regular issue is the 10th of the preceding month.
Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the AKF staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

Items in this publication may be reprinted providing credit to this publication is given and a copy of the reprinted material is forwarded to the editor. If an article is shown to be separately copyrighted by the author(s), then permission must be sought from the author(s). Reprints of material appearing in this journal may be ordered from the editor. Regular back issues are available for \$4.00 each. Special issues may cost more.

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<p>AAZK website Address: www.aazk.org BFR Website: http://aazkbfr.org</p>
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Scoops & Scuttlebutt



AAZK Chapters Help Underwrite AKF Production

During the 2011 Chapter Recharter process earlier this year, five AAZK Chapters generously sent in donations to help cover the costs associated with the production of *Animal Keepers' Forum*. We would like to thank them for their support in producing the Association's monthly professional journal.

For the June 2011 issue of *AKF* we wish to thank the Cape May County Zoo AAZK Chapter that is located in Cape May Court House, NJ. The Mission of the Cape May County Zoo AAZK Chapter is to further the education of their animal care professionals in the fields of Conservation, Research and Enrichment; to provide monetary and material support for conservation and education programs; and to continue to provide quality care for the Zoo's animal collection. ~AKF Editor



The Cape May County Zoo AAZK Chapter would like to thank the *Animal Keepers' Forum* for featuring us! We think that it is important for keepers to share experiences and ideas in this field. Our small Chapter works hard year-round to support our keepers and our zoo as well as local and international conservation programs. Annually, we send a keeper to the National AAZK Conference. We also provide most of the enrichment items for the entire zoo. Several of our activities throughout the year are educational fundraisers for the public. We organize night walks in the fall where keepers give tours to small groups after hours. This experience lets the public ask more questions and learn more about each individual animal. We have recently added a night walk in May due to their popularity.

Last year, we started a new fundraiser with "Alligator Block Party." At this event, children enjoyed alligator crafts including making your own alligator nest and making your own slime. We featured an alligator talk by our senior reptile keeper telling the public why it is a bad idea to own an alligator as a pet. The money fundraised from this event went to support our AAZK Chapter's program with New Jersey Fish and Wildlife to relocate confiscated and abandoned alligators to a sanctuary in Florida.

This March, we had our first "Beef and Beer for Bongos." Some people at this event did not even know what a bongo was until that night. We raised over \$1000.00 for the Mount Kenya Wildlife Conservancy. One of the Cape May County Zoo's bongos is now residing at their sanctuary and she has successfully bred there as a part of the Bongo Repatriation Project.

Finally, our major annual fundraiser is "Night Out with the Critters." We have a barbeque, several animal interaction stations, animal enrichment activities featuring keeper talks and education tables with artifacts, primate environmental enrichment devices and even our zoo vet. This event is always fun and a big success. Additionally, we are having a Keeper Invitational this year on Tuesday, July 19, 2011. Come exchange keeper stories and see our zoo!

In our future, we hope to send more keepers to conferences and raise even more money to support AAZK, our zoo, and more conservation programs worldwide. Once again, thank you for including us in this issue!

~Jennifer Hammell, President Cape May County Zoo AAZK Chapter

From the Executive Director

Date: 19 April 2011

Subject: Media Project Editor – *Animal Keepers' Forum*

By a majority vote of the AAZK Board of Directors, Shane Good, President of the American Association of Zoo Keepers, Inc, has been appointed as Media Project Editor for the *Animal Keepers' Forum* of AAZK.

Shane meets the educational and experience qualifications for the position and will bring to the Media Production Editor position, the skill of magazine production in the specified production format currently utilized, combined with on-the-ground animal keeping knowledge and techniques.

Shane will vacate the Presidency of the Association upon conclusion of the San Diego National Conference and will assume transition duties for production of the *Animal Keepers' Forum* under the tutelage of current Managing Editor Susan Chan, until her retirement from the Association on 31 December 2011.



Ed Hansen, Executive Director
American Association of Zoo Keepers, Inc
ed.hansen@aazk.org

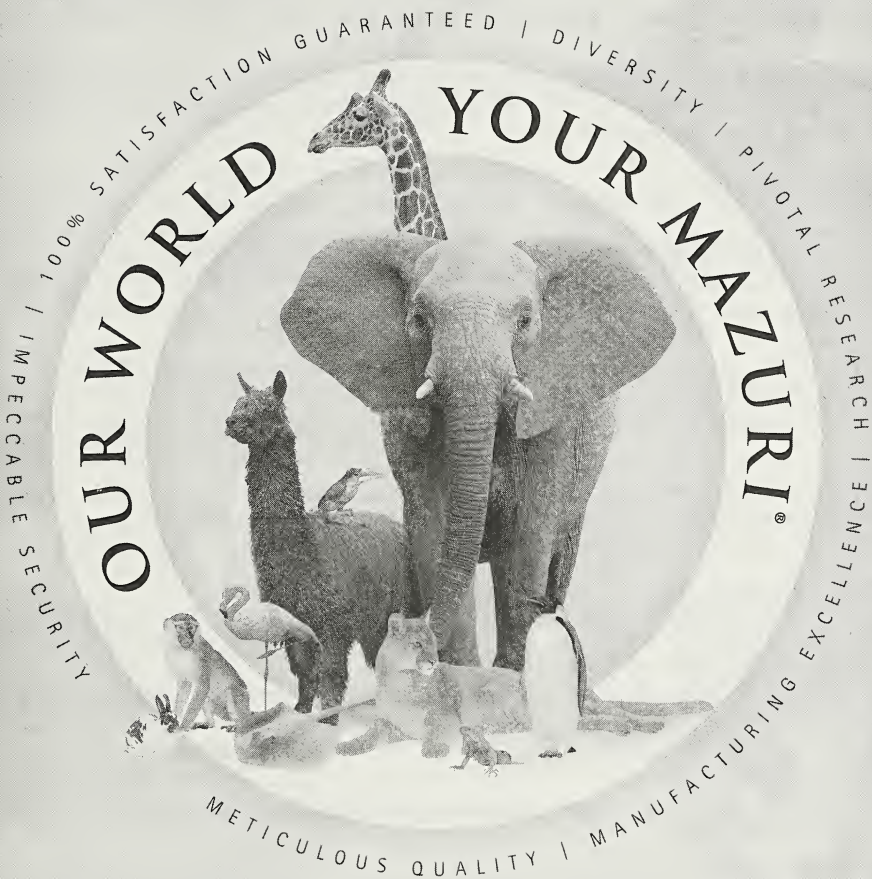
Reminder from AKF Editor on Production Schedule for Upcoming Issue

Just a reminder that the next issue of the journal that you will receive will be the combined July/August 2011 edition that is being dedicated to Ungulate Husbandry, Management and Conservation. This expanded issue will contain papers on many different ungulate species and topics will include, hand-rearing, training, enrichment, nutrition, and conservation. You will not be receiving an *AKF* in July, but should look for this double, dedicated issue to arrive at your mailbox sometime in mid-August or earlier depending on how my production schedule goes. We are excited about the amazing information that will be provided in this special edition of *AKF* and hope you enjoy the results of our efforts. Also, a personal Thank You to all those who have sent their good wishes during my recovery from heart surgery in May. Your support is very much appreciated. ~Susan Chan, *AKF* Editor



July 17 - 23, 2011

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Social Media Project Manager

AAZK is searching for a Social Media Project Manager who will be responsible for the creation and monitoring of all AAZK social media content. The Project Manager will use social media as an alternate way to connect and engage the Association, its membership and potential members. This position requires an active role in the integration of current events on both National and Chapter levels, membership information, marketing resources, and all other relevant information.

Effective communication is paramount to the success of any organization. Communication delivered in both a timely and interactive manner can help sustain that success through a collaborative and interactive engagement of our membership.

Essential Job Duties

Coordination and Management of the Association's Social Media Content

- Adding/subtracting social media content to include but not limited to: breaking news, sales, membership, marketing, conference information, Chapter information and AAZK, Inc. deadlines.
- Timely updating of content, including frequent to daily management of Facebook®, Twitter®, or other social media.
- Troubleshooting Links and user movement through the social media pages.
- Monitoring of the Social Media postings and their discussion boards; filtering and control over content.
- Uploading media relevant to the Association and its membership.
- Working with National Committees, posting relevant news and events.

Development, Coordination and Management of the Association's Social Networking Tools

- Creation of a comprehensive social media strategy to help increase visibility, interaction, membership, and traffic across AAZK webpages.
- Creation of a FaceBook®, MySpace® (or similar) information and social networking site.
- Development of a communication method utilizing Twitter® (or similar) for timely conveyance of AAZK information.

Creation Management of the AAZK INSIGHT replacement using Social Media

Duties shall also include:

- Pre-conference marketing of AAZK Products to the Membership via Social media sites.
- Correspondence with AAZK Chapters for news, information, or other pertinent information.

Reporting

- The Social Media Project Manager for Media reports directly to the President of the American Association of Zoo Keepers and is required to:
 - It is encouraged that a verbal be reported, in person, to the AAZK Board of Directors and Staff during the Annual Meeting, held in conjunction with the National Conference.
 - Write an Annual Progress Report to the AAZK Board of Directors
 - Write and submits a mid-year progress report on all projects.

Qualifications

- Passionate about Social Media
- Familiarity with creation, navigation and management of social networking sites
- Familiarity with Twitter® and Facebook®
- Experience with social media, creation and management of social media web pages.
- Daily and timely access to a computer to manage breaking news events including the ability

to secure an agreement with current employer for use of a computer (or time) during working hours to manage emergency communication

- Familiarity with Instant Communication methods (Twitter® or similar)
- Basic understanding of content copyright laws
- Social media tools and techniques
- Familiarity with marketing strategies, and product marketing
- Project management

Compensation

The Project Manager / Social Media shall have their yearly membership dues and National Conference Registration Fee (day or full) paid by the Association.

This is a compensated position with the American Association of Zoo Keepers, Inc. and the Project Manager will receive an annual evaluation from Supervision. Failure to meet specific deadlines set forth by Supervision for unsubstantiated reasons shall mean the suspension of compensation and the immediate termination of the Project Manager. If interested, contact: aazkoffice@zk.kscoxmail.com.

New Stamp Benefits Vanishing Wildlife

A new postage stamp dedicated to helping endangered species roared to life recently at the Bronx Zoo. Each stamp features an illustration of an Amur tiger cub and will sell for 55 cents. Eleven cents from each stamp goes directly to the Multinational Species Conservation Fund.

“What we’re doing here with this stamp is finding a new way to help this iconic species. These funds help save tigers and gorillas and rhinos Asian and African elephants and they’re small pots of money, but have a tremendous impact on these populations,” said Wildlife Conservation Society Executive Vice President of Public Affairs John Calvelli.

The Wildlife Conservation Society, which runs the Bronx Zoo, has been working with other groups for 10 years to make the stamp possible. The Save Vanishing Species stamp will go on sale in September 2011 for a premium above the normal first-class rate and will be available at all post offices in the U.S.

“Get people to realize that they can have a role, they can play a role, a constructive role, in helping to save these tigers,” Calvelli said.



All proceeds raised from the premium will go into the U.S. Fish and Wildlife Service’s Multinational Species Conservation Funds, which support efforts to protect wild populations of tigers, rhinos, elephants, great apes and marine turtles. These efforts include:

- anti-poaching patrols
- habitat protection
- disease prevention
- education for local communities about the value of conserving wildlife

The stamp was created by the Multinational Species Conservation Funds Semipostal Stamp Act, which passed Congress with overwhelming bipartisan support. WWF played a major role in the approval of the stamp and proposed the original idea in 2000. The stamp promises to generate millions of dollars for international wildlife conservation at a time when Congress is making deep funding cuts. These proceeds can in no way replace federal funds for international species conservation, but the stamp is a new, creative way to raise awareness and contribute to the protection of endangered wildlife.

For more information, visit www.wcs.org

(Source: ZooNews Digest #750, May 11-14, 2011; <http://zoonewsdigest.blogspot.com>)

Coming Events

Post Your Coming Events Here
email to: akfeditor@zk.kscsxmail.com

July 19, 2011 - Keeper Invitational at the Cape May County Zoo. To be held in Cape May Court House, NJ. Come have fun, see our zoo and meet other keepers from this area! Join us at the pavillion in the park at 2 p.m. until dusk, including access to the zoo after closing. Snack, pizza and subs provided. Please bring \$5 donation for food. Contact cmczaazk@yahoo.com or call (609) 465-2388 for further information or to RSVP.

July 20-23, 2011 - Biology of Rattlesnakes Symposium - To be held at the University Park Marriot in Tucson, AZ. Hosted by the Chiricahua Desert Museum and the Arizona-Sonora Desert Museum. People interested in presenting papers should contact Lori King Palmer at loriguanid@aol.com. Those interested in presenting posters contact Matt Goode at mgoode@ag.arizona.edu. For registration information, current list of speakers and other details, please go to www.biologyoftherattlesnakes.com

July 25-30, 2011 - The First-ever Joint Meeting of the International Ethological Conference (IEC) and the Animal Behavior Society (ABS). To be held at Indiana University, Bloomington, Indiana, USA. More information can be found at the conference website: <http://www.indiana.edu/~behav11/index.shtml>. The program will be exciting and integrative scientific that draws on the strengths of both the IEC and the ABS.

August 24-28, 2011 - AAZK National Conference. In San Diego, CA. Hosted by the Sand Diego AAZK Chapter and the Zoological Society of San Diego. See <http://sdaazk.com> for information.

September 19-22, 2011 - Elephant Care Workshop - a practical workshop on elephant footcare and habitat design to support elephant health - To be held at the Phoenix Zoo, Phoenix, AZ. Optional post-trip to Reid Park Zoo in Tucson. Workshop cost \$200, additional \$35 for Reid Park trip. Fees payable at registration so please bring cash, check or money order with you. Limited to 25 participants, preference given to elephant caregivers. To pre-register contact Heather Wright, Elephant Manager, Phoenix Zoo, by calling (602) 273-1341 ext. 7626 or email hwright@phoenixzoo.com

October 1-5, 2011 - 30th Annual Conference of the Association of Zoological Horticulture (AZH). Hosted by the Sedgwick County Zoo, Wichita, KS. Theme: "Bringing the World to the Plains". Seminars and workshops covering a wide range of topics involving Horticulture, Integrated Pest Management, Conservation and Exhibit Design will be presented. Participants within the Horticulture, Arboriculture and Grounds

Maintenance fields are encouraged to attend. For information call 316-266-8313, 316-266-8314 or visit AZH.org.

October 6 - 9, 2011 - Advancing Bear Care 2011 To be held in Banff, Canada. Bear biologists and naturalists will lead hikes into bear habitat and interpret for delegates how bears use the components of the ecosystem to express their daily and seasonal routines. We will bring this information back into workshops and apply this knowledge towards improving captive bear husbandry. Also, international bear biologists will assist us in interpreting Asian, European, and South American bear habitats. Conference updates will always be posted on the Bearcare Yahoo Group list serv <http://ca.groups.yahoo.com/group/bearcare/> You will be able to advertise your need for roommates, rides, conference questions etc. on this list serv. To join just send an email to bearcare-subscribe@yahoogroups.ca

October 6-9, 2011 - 32nd Annual Elephant Managers Association Conference - Hosted by the Seneca Park Zoo, Rochester, NY. The pre-conference trip will be hosted by Lion Country Safari in Cambridge, Ontario on Wednesday, October 5th (Passport needed to participate in this trip).

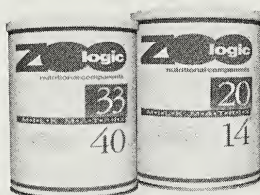
2012

April 12-15, 2012 - Otter Keeper Workshop - The 5th biennial workshop will be hosted by The Dallas World Aquarium. Any staff working with any of the freshwater species is welcome to attend. Topics will include: captive management issues, enrichment, training, water quality, health care, nutrition, diet, hand-raising, exhibit design, and lots of sharing of information between keepers. Registration is \$75.00. For more information, see www.otterkeeperworkshop.org

August 8-14, 2012 - The World Congress of Herpetology - To be held in Vancouver, Canada. For more information see <http://www.worldcongressofherpetology.org/>

September 9-13, 2012 - 4th International Congress on Zookeeping - Sponsored by Wildlife Reserve Singapore/Singapore Tourism Bureau. Theme: "Many Voices, One Calling". For info on sponsorship or exhibit opportunities email eo@aszka.org.au. Check the ICZ website <http://www.iczoo.org/> for latest news/information.

September 23-27, 2012 - AAZK National Conference - Hosted by the Rosamond Gifford Zoo and the Rosamond Gifford Zoo AAZK Chapter in Syracuse, NY.



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Dear AAZK Conference Delegates:

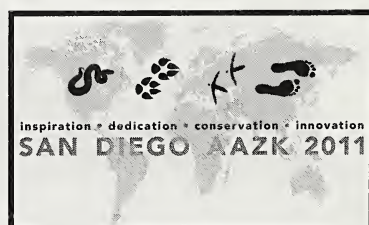
The San Diego Chapter of AAZK is very excited to have the opportunity to be your host in August.

As the conference draws nearer, updates and more information will become available. Here are some details, but please check our website and friend us on Facebook® (<http://www.facebook.com/pages/San-Diego-American-Association-of-Zoo-Keepers/224590787467/>) to be up-to-date on all things 2011 National AAZK Conference.

- **All sign-ups for workshops, zoo day, and pre/post conference trips are available online.** If you have not registered, please use your registration confirmation number to do so. Spaces are filling quickly and we want to make sure you are able to participate in everything you can.
- **Many of the Zoo Day Behind the Scenes (BTS) spots have been filled.** If you still need to sign up for a BTS, we recommend the Education Tour. It will provide an overall view of the zoo plus visits to 2-3 TBD BTS areas. There is also the Open House at our new Elephant Odyssey exhibit and the zebra husbandry and training demo in Urban Jungle, where neither require registration.
- **Abstracts and complete papers will be available online ONLY.** If you would like a copy of this information for your notes at the conference, you will need to print them out on your computer. Papers should be available on our website by early July.
- **Workshop descriptions available online.** If you were waiting for more information about workshops before signing up for them, they are now available.
- **You can offset your carbon footprint by participating in Acres for the Atmosphere.** This program will work with the San Diego River Parks Foundation and plant trees along our river. Learn more about the program and how you can participate on our website at www.sdaazkconf.wordpress.com/carbon-offset-program.
- **Bring your own reusable water bottle.** In order to reduce the amount of trash generated from the conference, we invite you to bring your own container to be used throughout the conference.
- **Transportation updates.** We have partnered with United Airlines and all delegates will receive a 5% discount off the lowest available fares. Visit our website for details. We will also be using public transportation during the conference and encourage you to avoid the use of a car. If you will be driving, we are doing our best to find a discounted parking location. Please check back on our website as the time gets closer for details.
- **Silent and Live Auctions.** Silent Auction items will be available in the Hospitality Suite all week and will end prior to the final banquet. The Live Auction will take place during the banquet. Be prepared for bidding and fun! If you would like to make donation to either auction, please contact Maureen Duryee at Duryee@cox.net.
- **Roommates wanted.** If you are looking for a roommate during the conference, check our Roommate Connections section for help.

As more updates become available they will be posted on our Facebook® page and website so be sure to join us and learn more. Otherwise, we are excited to see you in August. And be sure to bring your sunscreen!

Yvette Kemp
American Association of Zoo Keepers
President, San Diego Chapter
www.sdaazk.org



AAZK Announces New Members

New Professional Members

Amy Golden and Vanessa Jones, **Bronx Zoo (NY)**; Amanda Egen, **Philadelphia Zoo (PA)**; Mitchell Shire, **Smithsonian National Zoological Park (DC)**; Paul Brandenburger, **Maryland Zoo in Baltimore (MD)**; Nicole Pepo, **North Carolina Zoo (NC)**; Pamela VanPoppel, Keith Gilchrist, Jen Haverty, Lacey Jackson, Barbara Foster, Christine Dear, Carlos Kantor, Jennifer Stahl, and Karen Dolasin, **Greenville Zoo (SC)**; Joanna Eval, **Oatland Island Wildlife Center (GA)**; Stephanie Watkins, **Gulf Breeze Zoo (FL)**; Ashleigh S. Dickinson, **Naples Zoo (FL)**; Jeremy Hinkle, **Wild Animal Safari (MO)**; Kayleigh Fehncke, **Omaha's Henry Doorly Zoo (NE)**; Jennifer Cornish, **Black Beauty Ranch (TX)**; Kari Hunt, **Frank Buck Zoo (TX)**; Samantha Cadman, **Los Angeles Zoo (CA)**; and Peter Miller, **Woodland Park Zoo (WA)**. *(We do not publish the names of new and/or renewing members who do not list their facility on their membership application/renewal. There were six in June.)*

Renewing Institutional Members

Binghamton Zoo at Ross Park
Binghamton, NY

Sheila Green, Executive Director

International Exotic Feline Sanctuary
Boyd, TX
Richard Gilbreth, Director

Utah's Hogle Zoo
Salt Lake City, UT
Craig Dinsmore, Director

Arizona-Sonora Desert Museum
Tucson, AZ
Craig Ivanyi, Executive Director

Renewing Contributing Members

Kevin R. Shelton
Tampa, FL

John Jinks
Locust Grove, OK


An Animal's Perspective: A Unique View on How Zoo Animals Experience Their World Presented by the Center for Zoo Animal Welfare and the Detroit Zoological Society October 11-14, 2011

Instructors: Dr. Cynthia Bennett, Director of Animal Welfare, Detroit Zoological Society and Gail Laule, Active Environments

Detroit Zoological Society's Center for Zoo Animal Welfare is offering a unique four-day workshop designed for animal care and facilities staff, supervisors, curators and veterinarians working with captive exotic animals. The workshop will present topics and exercises aimed at improving the well-being of captive animals by better understanding their perspectives and experiences. Participants will attempt to see the zoo through the animals' eyes, hear the zoo through their ears, smell the zoo through their noses and experience the habitats as they experience them.

Workshop topics will include understanding the limitations that a human perspective imposes on our view of the world, identification and resolution of animal welfare issues through environmental modification and enrichment, positive reinforcement training techniques, and altered husbandry practices. Workshop format includes lectures, discussions, small group projects, demonstrations and multiple hands-on opportunities with animal environments at the Detroit Zoo.

For more information and a detailed description of the workshop go to: www.czaw.org



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Vultures Need Their Day, Too!

By

*Jenyva Turner, Animal Keeper IV
Cheyenne Mountain Zoo, Colorado Springs, CO*

Quick! Name five animals that people want to see when visiting the zoo!

Let me guess, vultures were not on the list, right? That was the challenge I faced in 2009 when my conservation project, Cape Vulture (*Gyps coprotheres*) Conservation in South Africa, was chosen for Cheyenne Mountain Zoo's (CMZ) Quarters for Conservation (Q4C)* program. How could I put vultures on the (zoo) map and help guests to appreciate the value of vultures and inspire them to vote for vultures when many other more charismatic species were available to choose from?

One easy way was to capitalize on the birds there in front of guests and focus more on our vultures during keeper talks and tours and our Wings of Africa bird show. Guests can even get up-close to our vultures and feed them during the show, creating quite the Defining Moment! The vultures are part of our show finale as they hiss and cackle and tackle each other for knuckle bones, wowing guests as they act like, well... vultures!

The second, not-so-easy way to help put vultures on the map was to create a special day just for them. Therefore, I decided to speak with Kerri Wolter of The Vulture Programme in South Africa, whose work and research CMZ was supporting through Q4C, and see if she would be interested in celebrating vultures on the same day, thereby creating an "international" vulture awareness day (even if it involved only two organizations in two countries). We were both very excited about the possibilities, so Kerri approached her colleagues at the Endangered Wildlife Trust (EWT) whom she already worked with in holding a local annual Vulture Awareness Day in South Africa. EWT said we could hold our event the same day as they were speaking to farmers all across South Africa, helping spread the word about vulture restaurants, vulture colony monitoring and the effects of poisoning. So we set our sights on September 5, 2009 to be our first-ever International Vulture Awareness Day.



Official 2011 International Vulture
Awareness Day Logo

Word about this International Vulture Awareness Day (IVAD) quickly spread as Kerri Wolter and Andre Botha of EWT decided to invite other vulture enthusiasts and experts around the world. Soon Bird Life- South Africa, The Hawk Conservancy Trust, Bird Life- International, and World Wildlife Fund - Pakistan were on board for September 5th! I was particularly excited about conservationists in Pakistan, India and Nepal joining us as the Asian vulture crisis was a huge reason why I submitted a project focused on vulture conservation for Q4C in the first place. Most people had not heard about what was going on in Asia a few years ago regarding the massive decline in the vulture population and I wanted to help bring that crisis to light and in some small way, help prevent that same crisis from occurring in Africa.

I was getting so excited about the response from well-known and respected organizations that I decided to send out invitation emails to other national and international organizations focused on vulture or avian conservation. I contacted Scott Tidmus of Disney's Animal Kingdom, and with his help, as well as the help of everyone else overseas, the concept of IVAD exploded! We developed a

logo (so we could be all official) and set up a website where participating organizations could sign-up and share their events with others. I was moved beyond words at the response from people all over the world! On September 5, 2009, over 125 organizations around the world celebrated vultures together!

The IVAD event at CMZ was a huge success! Kids could make vulture puppets, they could make enrichment for our zoo vultures, they could look for wild turkey vultures flying overhead, make a vulture nest, fly like a vulture, the list goes on and on... but the station that was the biggest hit was the vulture stomach juice station! Now, in order to make this experiment totally believable I would have needed to use hydrochloric acid or battery acid, but considering battery acid and kids don't really mix, I resorted to vinegar! In this fun little experiment kids could learn about why vultures can eat things that would make us sick and why they are such effective scavengers. There was also a "scavenger" hunt where guests could go around the zoo looking for the bright red vulture fact signs and answer trivia questions for a chance to meet and feed our vultures. It was such a fun day (for me especially!) and whether they wanted to or not, no guest could leave the zoo that day without thinking at least once about vultures. That was my goal.



Comparing arm span with a
Cape vulture wingspan

(Photo: Jenyva Turner)



Feeding the vultures at the
Wings of Africa Bird Show

(Photo: Andrea Bryant)



Discovering the power of
vulture stomach juices

(Photo: Jenyva Turner)

* To learn more about Cheyenne Mountain Zoo's Quarters for Conservation program (Q4C), visit <http://www.cmzoo.org/conservation/quarters/>

We continue to celebrate IVAD on the first Saturday of September. This year marks the third annual IVAD on September 3, 2011. I am personally inviting all of you who have vultures or condors at your institution (or even just love vultures!) to join us that day in celebrating everything vulture! Even if you do not exhibit vultures purposely, you probably still have vultures around your zoo. With black and turkey vulture populations numbering in the millions, no one is devoid of vultures!

We are making the event even easier this year and Keith Channing of The Hawk Conservancy Trust (who set up the original IVAD website) has created a Wikispaces for IVAD where people can share ideas, talk about vultures and even upload files for others to use. I am currently in the process of gathering the materials I have put together for IVAD over the past two years and uploading them. Why "reinvent the wheel"? We can all share our ideas with each other and help IVAD continue to grow and be successful!

You can find out more about IVAD and sign up to join us this year at <http://www.vultureday.org/2011/>. Check out our IVAD Wikispaces at <http://vultureday.wikispaces.com/>. And if you are like me and need help navigating the page, visit <http://help.wikispaces.com/>. They have video tours that are super helpful! And you can always contact me at jturner@cmzoo.org if you have questions, as I LOVE to talk about vultures!

As a result of the vulture awareness campaign during the past two years, I can confidently say that vultures are finally on the Cheyenne Mountain Zoo map. (As well as were on a building in downtown Colorado Springs last summer... and billboards across the city...) Guests now notice and even look for our Cape vultures when they enter into African Rift Valley and CMZ guests, staff and docents have helped me raise over \$15,000 for vulture conservation! And while I can't trump feeding the giraffe as the best guest experience in my area, I love how vultures now have their day... in a big way.

ZooNews Digest/Zoo Biology Group - Check Them Out!

ZooNews Digest is the longest established and most widely read listing of current 'zoo' related news on the Internet. It notes 'real' events of interest to those working within the zoo industry. The Digest also includes comments and notification of courses and coming events. You can check it out on its Facebook® page at <http://www.facebook.com/pages/ZooNews-Digest/41410063216?ref=nf>. Or check our <http://zoonewsdigest.blogspot.com/>

The Zoo Biology Group is concerned with all disciplines involved in the running of a Zoological Garden: captive breeding, husbandry, exhibit design and construction, diets, enrichment, management, record-keeping, etc. To join the Zoo Biology group see <http://groups.yahoo.com/group/zoo-biology> for qualifications and process.

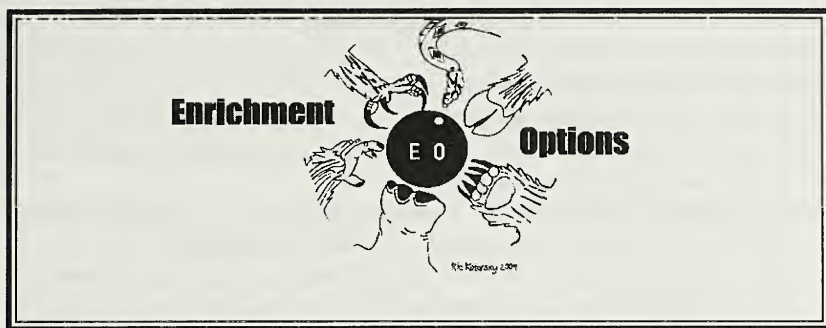
Upcoming AZA National Conferences

Sept. 12-17, 2011 - AZA 2011 Annual Conference - Hosted by Zoo Atlanta, Atlanta, GA

Sept. 8-13, 2012 - AZA 2012 Annual Conference - Hosted by Phoenix Zoo, Phoenix, AZ

Sept. 7-12, 2013 - AZA 2013 Annual Conference - Hosted by Kansas City Zoo, Kansas City, MO

For info on AZA Conferences, see http://aza.org/ConfWork/AC_Intro/index.html



EO Editors -

Julie Hartell-DeNardo, Saint Louis, MO and Ric Kotarsky, Tulsa Zoo & Living Museum

Using Browse and Puzzle Feeders to Increase Natural Behaviors in Giraffe

*By Kate Meinhardt, Giraffe Keeper
Nashville Zoo, Nashville, TN*

An important goal for any good enrichment program is to increase an animal's natural behaviors while reducing or eliminating stereotypy. In *The Behavior Guide to African Mammals*, Richard Estes indicates that giraffe in the wild spend up to 72.4 % of the daylight hours feeding depending on the season and the sex of the giraffe.¹ Although giraffe in our care do not need to spend as much time foraging due to their diet of concentrated grain, they still have a strong foraging instinct and if this need is not met stereotypic behaviors may arise. Some potential stereotypic behaviors demonstrated by giraffe include licking inappropriate materials or pulling out and/or consuming their own or other giraffe's tail and mane hairs.

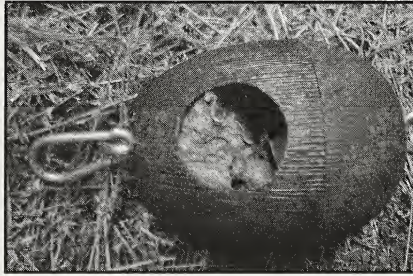
Opportunities for stereotypic behaviors can be reduced by providing ways to increase appropriate foraging behaviors. At the Nashville Zoo we use 12 different types of puzzle feeders with our 1.3 Masai Giraffe (*Giraffa camelopardalis tippelskirchi*). The puzzle feeders are especially important in the winter, when there is less browse available due to Tennessee's colder climate. Through trial and error we have learned that each feeder has its own advantages and disadvantages. Some have been inexpensively constructed from easily obtained materials such as PVC pipes and water jugs while others are commercially available products that can be purchased. Below, I will also offer additional tips on use and construction of these puzzle feeders with an emphasis on safety. We offer browse feedings 3-5 times daily and browse is strategically hung in such a way that each giraffe is ensured to have at least one branch at each feeding. Over 20 different varieties of browse are offered to our giraffe, all of which keepers find on zoo property. Favorite tree leaves are collected late summer/early fall and frozen for use in the winter when browse is scarce. Leaves are then thawed out and stuffed into puzzle feeders. Additional forms of enrichment have been fabricated to increase other natural behaviors, such as slab wood secured to stall walls for the giraffe to rub against or chew.

By using browse and puzzle feeders as reinforcement, we are able to successfully shift giraffe onto and off exhibit as well as shift them inside the barn for cleaning in the winter. The positive result of reinforcing the giraffe using enrichment feeders has created an environment where the trust between the giraffe and the keeper is high. Pressure is rarely used with our giraffe as the situation where they are unwilling to cooperate seldom occurs. The giraffe at the Nashville Zoo show minimal stereotypic behavior & self mutilation has not been observed since 2006. As a result of our enrichment program, our giraffe have long tails that almost touch the ground, full manes and pace minimally. We have seen an increase in rumination and natural foraging, decrease in stereotypic behavior and our females even prefer fresh browse or puzzle feeders to their concentrated grain.

Puzzle Feeder Tips:

- Always file down and sand holes after drilling.
- Use locking hardware when possible.
- We use a forstner bit (2" or 2 1/8"). A wood burner can be used to create holes in plastics but be aware that this creates toxic fumes.
- A puzzle feeder is only as safe as the method used to hang it. In the barn we use double ended clips to clip them to stall mesh or rope with clips incased in PVC.
- 1.0 breaks most puzzle feeders that he can reach with his head. On exhibit we can use the bamboo and coconut puzzle feeders safely as they hang freely and the holes aren't deep enough that he can get an ossicone stuck.
- When introducing a new puzzle feeder, make sure you don't trap the giraffe in a stall with it. The giraffe may feel threatened and will need space to investigate the new object.

Coconut



Materials:

- Artificial coconut from www.luauexpress.com
- Super Glue®
- 2 eye bolts with matching nuts

Pros:

- Naturalistic so it can be used on exhibit.
- More challenging than some of the other feeders as it spins when hung from our exhibit tree.
- Clips can be used to connect multiple coconuts.

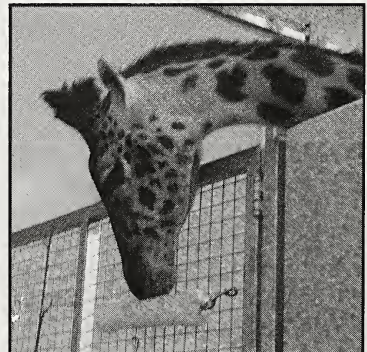
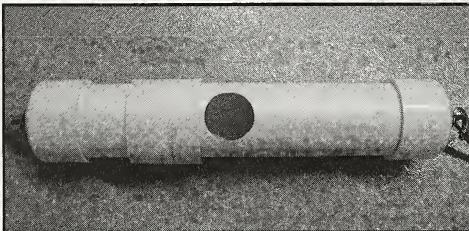
Construction:

- Drill hole and add eye bolts with matching nuts to each end of the coconut.
- Glue together and give at least 7 days for glue to set.

Cons:

- Does not hold a lot of food items.

PVC Tube



Materials:

- ~3.5 PVC tube
- Matching end caps
- Eye bolts with matching nuts

Construction:

- Drill 2" hole in PVC tube.
- Drill holes and add eye bolts with matching nuts to each end cap.

**Pros:**

- Good for long grasses and pieces of bamboo.
- Tightly-fitted end caps allow easy cleaning and loading of items.

Cons:

- Giraffe can force pieces apart.

Thorn**Materials:**

- Water jug
- ~1 PVC tube
- Bolts
- Add a links

Construction:

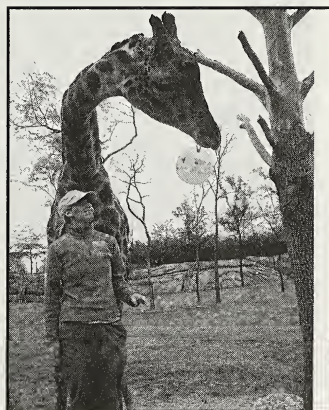
- Drill multiple 2" holes around sides of large water jug.
- Drill large hole at top.
- Drill bolts into small PVC tube and place inside jug.
- Drill bolt into neck of jug.
- Attach add-a-links to neck bolt for hanging.

Pros:

- Good for bulky items like grapevine.
- One of our favorite things to do is fill this feeder with water. Our giraffe will spend up to an hour licking the water out.

Cons:

- Brittle plastic cracks easily.

**Pumpkin**

Materials:

- Plastic pumpkin pail
- Chain
- Mighty Patch Titanium

Construction:

- Cut off plastic handle.
- Replace handle with chain pulled tight across the top opening.
- Secure chain with Mighty Patch® Titanium.
- Drill 2" hole in pumpkin.



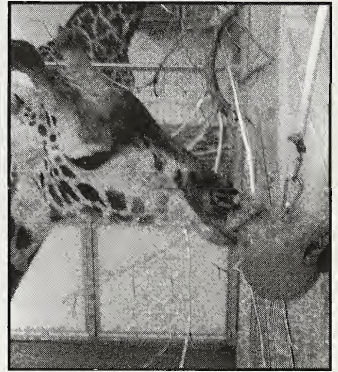
Pros:

- Makes for a great holiday-themed feeder to be used on exhibit.
- More challenging than some of the other puzzle feeders as it spins when hung from our exhibit tree.

Cons:

- Giraffe eat out of the top rather than the cut out hole.
- Giraffe eat out of the top rather than the cut out hole.
- Supervision is required as a giraffe could get an ossicone caught in the top hole.

Jolly Apple™



Materials:

- Jolly Apple™

Construction:

- Drill multiple 2" holes in Jolly Apple™.

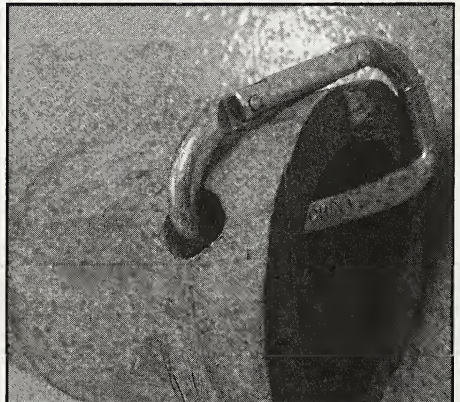
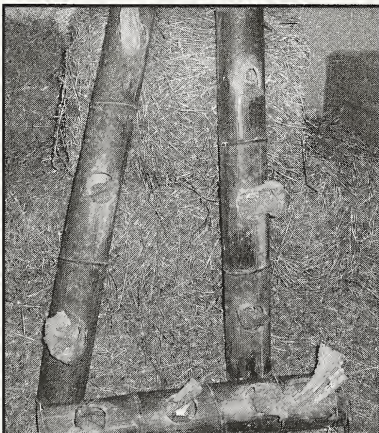
Pros:

- Inexpensive.
- Appeals to our giraffe more than any other feeder.

Cons:

- Our giraffe cleans out the puzzle feeder quickly.

Bamboo



Materials:

- Bamboo

Pros:

- Can be hung vertically or horizontally.
- Naturalistic so it can be used on exhibit.
- Cut desired length of bamboo along natural joints.
- Cavities can each be filled with different food items.

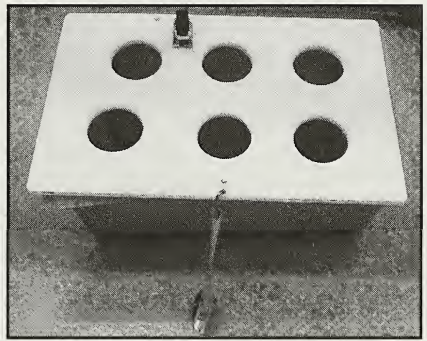
Construction:

- Drill 2" hole in each cavity.
- Drill small hole at top of bamboo for hanging.

Cons:

- Difficult to disinfect as the natural coating inside the bamboo gets slimy.

Dish/Licking Board



Materials:

- Grain dish
- Any items you want to fasten to the dish to make it more appealing-we use spoons and wheels
- Bolts and clips to attach novel items
- PVC board
- Nuts and bolts

Pros:

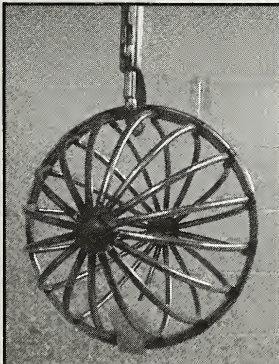
- The deep dish and multiple holes increases foraging time
- Giraffe manipulate the novel items

Construction:

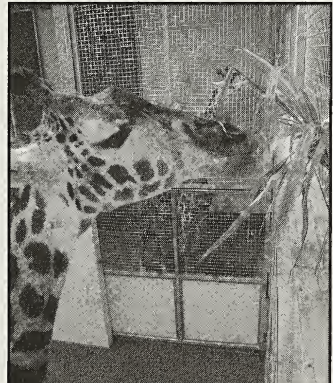
- Drill multiple 3" holes in PVC board
- Drill holes along edge of grain dish and PVC board
- Use nuts and bolts to fasten board to top of dish
- Find novel items to secure to dish

Cons:

- 1.0 pushes into the feeder when he is done and has broken the dish



Bingo Feeder™



Materials:

- Bingo Feeder™

Construction:

- Use double-sided dog clip to keep closed

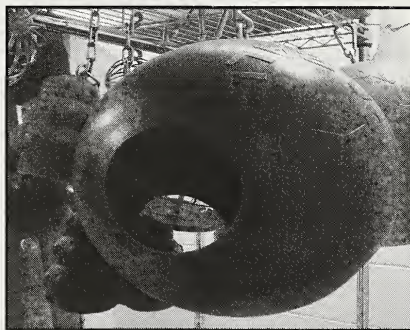
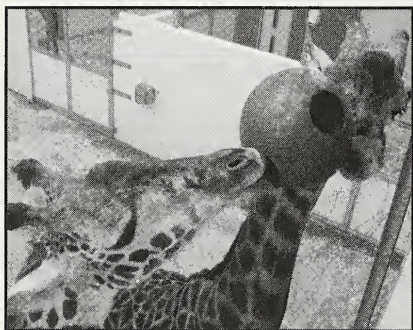
Pros:

- Great to spear grass through
- We put blocks of ice in the feeder and the giraffe lick the water as it melts

Cons:

- Does not hold many food items
- Holes are not large enough for giraffe tongues so it is very limited as to what can be offered in the feeder

Jolly Ball™ Feeder



Materials:

- Jolly Ball™ Puzzle Feeder

Construction:

- Drill hole at top of feeder
- Secure eye bolt into hole
- Use double-sided dog clip to hang on mesh

Pros:

- Great for bulky items
- Does not break easily

Cons:

- Holes are big enough that ossicones can get stuck
- Does not hold produce well

Health E-Z™ Hay Feeder

Materials:

- Health E-Z™ Hay Feeder for horses

Construction:

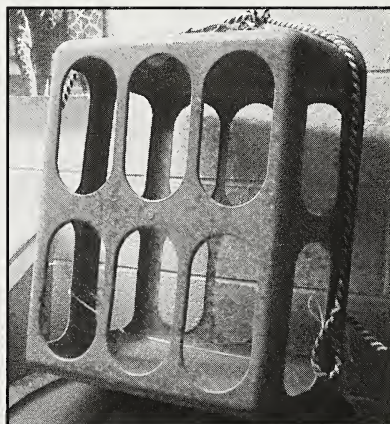
- Double-sided dog clips to secure closed

Pros:

- Great for bulky items
- Our giraffe increased alfalfa consumption when it was offered in this feeder

Cons:

- Flimsy - we do not offer to 1.0 as he would most likely break it



Boomer Ball® Bobbin Puzzle Feeder

Materials:

- Boomer Ball® Bobbin Puzzle Feeder

Construction:

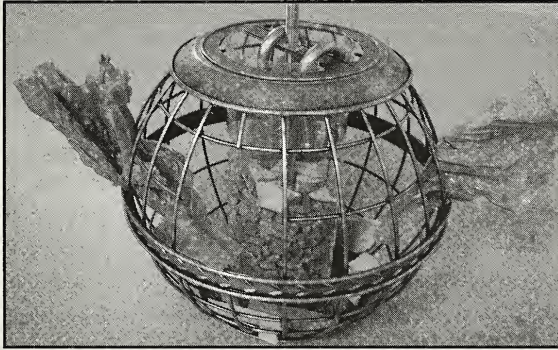
- Drill hole in top of feeder and secure eye bolt at top.
- Hang with double-sided dog clip

Pros:

- A small ball (not pictured) is hanging on the inside of the feeder that the giraffe are able to manipulate with their tongues
- Very sturdy
- Our male enjoys sparring with it

Cons:

- Giraffe seem to have a hard time pulling items out of the feeder



Modified Bird Feeder

This is in the prototype phase. As this is still a work in progress we will try to eliminate some of the challenges we have come across.

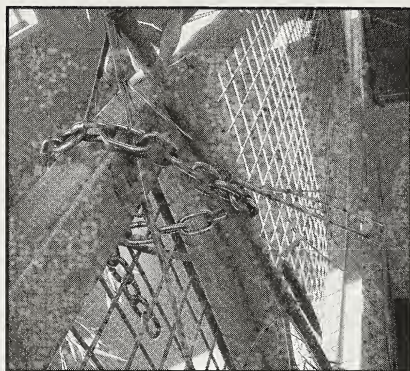
Our Goal: We want the giraffe to use their tongues to eat grain out of the center tube and then when the grain level gets lower they can use their tongues to push grain out of the smaller lower holes into the globe where they can reach it.

The Problem: Most of the grain spills out of the feeder and onto the ground.

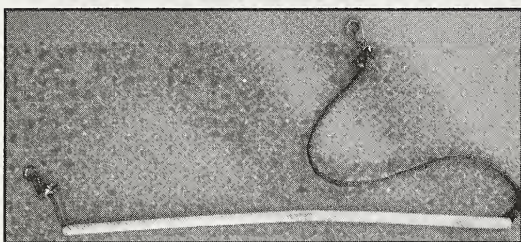
Construction: Construction will vary depending on the type of bird feeder used. This particular bird feeder had a tube with holes enclosed by a metal globe. We removed the tube and made two of the holes larger and then replaced it. We also clipped two holes in the wire globe.



Browse



Chain browse hanger



Rope encased with PVC browse hanger

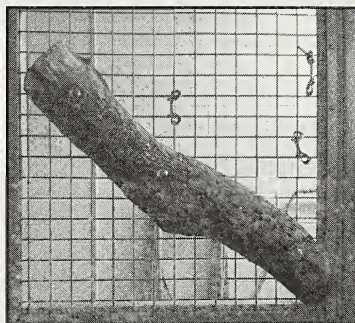
On Exhibit:

Browse is offered three times daily when giraffe are on exhibit. We have three browse hangers at the back berm of the exhibit that keepers are able to access with stairs. Browse is hung with the rope encased in PVC and chains. Branches are also hung at the front of the exhibit at a tree

to encourage giraffe to spend time near the public. The public response when browse is hung for the giraffe is exceptionally high. Not only is it enriching for the giraffe but it allows guests to see how a giraffe would behave in the wild.

In the Barn:

When giraffe are on exhibit all day, keepers hang a large branch in each stall for the giraffe to consume when they come inside for the night. When it is too cold for giraffe to go outside, keepers offer browse 3-5 times daily. Large branches are hung from the mezzanine of the barn using chain and clips (pictured above middle). Smaller browse is sporadically clipped to doors and walls throughout the day. Our giraffe are willing to shift for browse which makes the cleaning routine possible.



Slab Wood

Keepers fabricated slab wood to secure to mesh in each stall from elm logs. Logs were split with a chainsaw. Three holes were drilled in the split log. Logs were then fastened to mesh with large nuts, bolts and washers. Our giraffe chew the bark off and rub against the wood.

Acknowledgements: "I would like to thank Erin Teravskis who co-authored the poster presentation Giraffe Puzzle Feeders at the Nashville Zoo presented at the 2010 IAGCP conference from which much of this material was derived. Former Nashville Zoo giraffe keepers Erin Teravskis and Elena Lamar both were instrumental in designing and implementing many of these ideas."

¹The Behavior Guide to African Mammals by Richard Despard Estes, 1991. Pages 204-205

Grants Review: AAZK Professional Development Grant

By

Victor Alm, Zoological Manager

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Presenting and Professional Development: Final Report for 2010 National AAZK Conference (Philadelphia, PA)

The 2010 AAZK National Conference, although light on attendance was a very significant and exciting conference to have attended. There were a lot of changes, experiences, and decisions with the Professional Development Committee, AAZK, and my own career that have changed or have the potential to change the face of the AAZK and my focus as a professional zookeeper.

The Professional Development Committee – The new direction of AAZK

As a member of the AAZK Professional Development Committee I was able to participate directly in setting up and supporting two workshops that were planned and hosted by the committee. These workshops were The Passerine Husbandry Workshop and the Rotating Exhibits Workshop. Both were very exciting and worthwhile workshops that are summarized and discussed in more detail in the following workshop review section. However, the other main focus of the committee at this conference was to meet about the new direction of the Professional Development Committee and their increasing role in the future of continuing education and conference planning/logistics for AAZK National. Some of the changes that are being discussed or taking place are the management of all conference programming (workshops/papers) beginning with reviewing abstracts that come in from other AAZK committees, individual presenters, and the host Chapter to aid in creating the final product that is seen when delegates start to arrive. This would be change from the host Chapter being responsible for coordinating all of the above things.

Templates of what this experience may look like will be debuted in San Diego with the final transition looking to take place by the 2013 conference. The other main push for the overall committee is to work on a keeper certification process that involves attending conference workshops at national AAZK conferences. Once keepers attend certain tracks of classes they will bring back experience and information to their home facilities. To help in this the committee is working on standards and expectations for all workshops and individual presenters/moderators that we are soliciting and accepting. If we are going to potentially be creating a process to certify keepers at certain levels, certain expectations need to be met. This will create value for the many directors and curators to send staff to certification opportunities. To aid in this increase in future responsibilities, the committee is forming two sub-committees - one on Conference Programs and one on Continuing Education - each headed up by a project manager.

Workshop Review – Aggression, Passerine, Rotating Exhibit

As part of my duties and desires in serving as a member of the Professional Development Committee I attended two workshops that were hosted by the professional development (the Passerine Husbandry Workshop and the Rotating Exhibit Workshop). Both of these workshops were very exciting and had a lot to offer to attendees. The Passerine Bird Workshop was hosted by Robert Webster from the Toledo Zoo. The agenda focused on allowing keepers to be able to share their own personal or their own facility's advancements in the care and husbandry of these small birds. Several talks focused on just that - such as Swamp Sparrow Husbandry at the National Zoo, Tananger Husbandry at the Toledo Zoo, and Tawny Frogmouth Husbandry at Sea World Orlando. On top of that it gave a host of other talks that focused passerine bird biology (Embryology, incubation), capture and restraint (handling small birds for veterinary procedures), family and species status (The passerine predicament, Asian species: the first off the ark), exhibit design (Redesigning an indoor exhibit for passerines) and behavioral husbandry (Enrichment, training, exhibit design, and species compatibility in large aviaries). All of these talks and their presenters can be viewed in the member's only area of the AAZK website (www.aazk.org) under professional development. Overall my impression was that this workshop gave a lot of useful information that had good "take home" value, but was given in a compressed format with not a lot time spent on discussion after each talk. Part of this may have been that this was a multi-day workshop that was presented in six hours; the other part may have been that outside

of the presenters who were involved in hosting or delivering portions of the workshop, attendance was low. In the past this workshop has been a stand alone event that was hosted at zoos in the mid-west where keepers attended specifically to participate in it. This time the workshop was included in the greater AAZK conference and had to share time and compete with numerous other presentation sessions and events.

The Rotating Exhibit Workshop was an evening workshop that was hosted by keepers from the Denver Zoo, Disney's Animal Kingdom, Philadelphia Zoo, and the Point Defiance Zoo. The Denver Zoo is home to Predator Ridge, a rotating exhibit of African savannah mammals, The Philadelphia Zoo is home to Big Cat Falls, a rotating exhibit of various species of large felids from around the world, and Point Defiance Zoo is home to the Asian Forest Sanctuary, a rotating exhibit of Asian animal species of various taxa. This type of animal exhibit is becoming a new direction and method of revitalizing old exhibits while staying in existing footprints and addressing the ever-rising expectations of animal welfare and behavioral husbandry. This two-hour workshop focused on the daily opportunities and challenges associated with this type of exhibit with emphasis on enrichment, safety, guest experience, along with the flexibility, freedom, and limitations that one might face if considering a change in this style of animal exhibit.

A great addition to this workshop that came was not even part of the actual workshop but the chance to tour and view the operation of Big Cat Falls during zoo day, creating a very real way to bring home the opportunities and challenges that come with this style of animal exhibit. Some of the group thoughts on the opportunities that come with rotating exhibits were the inherent enrichment possibilities, the structuring of unique and complex training programs, the ever-changing visitor experience, and institutional support for a flexible and team-oriented approach to management. Some of the group thoughts on the challenges of rotating exhibits focused on veterinary issues, the structuring and progression of complex training programs, animal shifting, social aggression issues between animals, staffing and staff training, and safety. All of these talks and their presenters maybe viewed in the member's only area of the AAZK website under professional development. This workshop was well attended and offered more than just learning about what other zoos that are in the process or were recently in the process of renovation are doing. It offered ideas and ways of looking at exhibits in your existing facilities. At the Oakland Zoo we have had the experience of allowing alternating evening access between two adjoining exhibits in our rainforest section of the zoo that share a common access gate. This gate normally would be used for hauling large items in and out of the two exhibits but can be used to allow our sika deer (*Cervus nippon*) and muntjac (*Muntiacus reevesi*) to have access to our sunbear exhibit once a week. So far this has been a great success for our zoo and has allowed us to witness more natural behaviors and enrichment opportunities for our animals.

The other workshop that I attended was the workshop on understanding and dealing with aggression hosted by the Behavioral Husbandry Committee. The focus of the workshop was to look at the way we see and encounter aggression from the animals we manage on a daily basis and how our perceptions affect the safety of the animals, keepers, and the public. Topics discussed were the basics of aggression, signs and types of aggression, why aggression may occur, and methods to reduce aggression in our animal collections. The workshop closed with a panel discussion between the committee and the participants allowing personal experiences and issues to be shared and problem solved. Of all three workshops I attended, this was the one that I left with the most "take home value". It may have been coincidence but I was currently dealing with aggression issues with an Amazon parrot (*Genus Amazona*) I help manage. In the case of our Amazon Parrot we are facing a situation where he may have needed to leave our education department programming if the issues were not resolved. After leaving this workshop I left with some new management techniques and protocols to bring back to my facility that are now in place as well the peace of mind that we were already put into place effective changes that will allow us to easily adopt these new changes.

My Presentation – Conservation in Your Community

In addition to participation in the AAZK Professional Development Committee I also came to the conference in Philadelphia with a presentation of my own focusing on how keepers can use their unique skills to directly benefit in aiding conservation organizations in their own communities while potentially advancing their own personal goals of making a meaningful contribution to animal and habitat conservation issues along with their own professional development. The paper that generated this presentation can be viewed in the January 2011 edition of the AAZK *Animal Keepers' Forum* as well as the 2010 Philadelphia National Conference Proceedings.

After attending many conferences at AAZK National level and Wildlife Conservation Expo I felt the need

to share this information as the message of getting out there and helping was there but the impressions were that you could only make a difference if you traveled to other countries where many of the species we care for live. However, there are numerous opportunities in your own local communities and zoo to get involved in that could fulfill the need to help with wildlife conservation as well as your own development. Many of these opportunities as well, especially in the rehab field, could benefit from having fully trained animal keepers and could gain as much from having us as we could gain from them by being involved with them.

Voting as a Member of AAZK National

On the closing day of the conference it is typical to have the Awards Luncheon as well as conduct business, discuss financial stability, procedural updates, announcements, and association voting with present membership. At the Philadelphia conference the issues of offering an institutional membership to Ringling Brothers and the question of does this organization meet the AAZK criteria for institutional membership came up before those in attendance. The mission of AAZK national has always been to advance the profession of animal care, to provide professional development opportunities for the membership, and to strive towards the positive affect on the lives of animals in captivity. The discussion prior to the vote centered around giving access to the mission and the resources that AAZK can grant to animal care professionals and should it be limited to accredited AZA institutions or allowed to extend to facilities and organizations, like Ringling, that may be caught up in controversy surrounding their animal care practices, management techniques, and welfare standards. Although the vote was only on allowing Ringling access to these resources, the implications of this vote in my mind had much broader implications than just one organization.

This vote was a sudden one and I did not feel like I did not have a lot of information on the background leading up this vote, and was very much pulled in different directions. On one hand, I strongly believe and support the mission of my own zoo which has a strong focus towards improving animal welfare and animal care best practices, not only with the animals that call the Oakland Zoo home, but in the campaign to promote the mandate of protected contact with elephants, the humane treatment of animals in captivity, and the support of animal welfare organizations such as the Performing Animal Welfare Society. On the other hand, I am also committed to my involvement in and mission of the AAZK and its mission to provide professional development and continuing education opportunities to all animal care professionals.

There is a lot to think about when a vote like this is presented to you, such as who do I feel is a fellow animal care professional? How would this vote affect current institutional members that are not AZA accredited? Should facilities and individuals that are controversial, do not meet certain standards of other governing organizations be given the opportunity to improve themselves? Would those said organizations want access to our resources or will they dismiss the information we have to provide. Will such organizations use membership as a political tool, will it embroil the AAZK in controversy? Can or should AAZK keep their neutrality as an educational organization? Should the AAZK take a public stance on controversial animal care issues, such as elephant management, and how would that play out? And should this type of vote include more than the limited representation of the AAZK membership that are present at National Conferences or be put out in the members only area for an electronic vote? Clearly there are a lot of questions and values one could grapple with in a short amount of time and I will tell you that in the moment I did so with a limited number of these. The rest I contemplated further at a later time as I discussed the issue with my fellow keepers, other peers on the committees I volunteer with, Shane Good, and other members of the AAZK National Board. In the end I voted with what information I knew and the core values that matter to me most. I think that is all one can ask of themselves, with no regrets, and hope that your vote and opinion helps to continue a healthy and professional dialogue to improve the lives of the animals we care for, the standards of the facilities we work for, and the forward movement of the profession to which we have dedicated our careers.

Conclusion

In closing I would like to thank the AAZK Grants Committee for choosing me to be the recipient of the Professional Development Grant, my Curator for supporting my attendance at Philadelphia and take a greater role in AAZK National, and National AAZK Board members Shane Good, for having an open door and mind, and Bob Cisneros for always supporting me and believing in me. My experiences at the AAZK Conference have encompassed what this grant was about because I feel that the experiences and opportunities I was presented with and faced with at this year's AAZK National Conference have continued to shape and influence the direction I am going as an animal care professional.

Alcid Scale Conditioning

By Tricia McDeed, Senior Aviculturist
Sea World ~ Orlando, FL

An integral part of maintaining a healthy alcid community is the periodic recording of weights. Alcids are naturally timid around humans, whether they are hand or parent-reared. The process of weighing a shy bird has to be approached in a way that is safe for both bird and aviculturist. For many years the Alcid collection has been weighed in a manner that invokes negative behavior. A new approach is underway as a means to resolve the dilemma.

The purpose of scale conditioning the alcids is three-fold. It is a hands-off approach resulting in a safer, less stressful experience for both bird and aviculturist. This method can develop relationships with individual birds, especially those used for public interactions. Lastly, maintenance weights can be used for factoring yearly trends, helping to determine the overall health of the birds.

The goal of these scale sessions is to encourage as many alcids as possible onto the portable scale on a regular, but voluntary, basis. In addition, emphasis would be placed on educating current alcid caretakers to adopt the new husbandry behavior.

The old method of recording maintenance weights on the birds often incited negative reactions and kept them at a distance making it more difficult to complete the task. Because the birds are skittish, a capture increases the chance of physical injury to a bird in its effort to escape. Even though more frequent weight information would be beneficial, inflicting this high-stress ordeal on a bird more than once a year becomes risky. The time available to catch or trap birds is limited to the early morning hours before the exhibit opens to the public.

In order to achieve this goal, a simple Step Chart was implemented. The birds were first desensitized to the scale by having it placed in their environment during our routine morning cleaning. This enabled the aviculturist to make observations while the birds were enticed to within close proximity of the scale through various forms of enrichment. Individual birds that stepped up onto the scale were further rewarded with food or a toy.



Introducing the mat to the puffins for the first time was the initial step used to desensitize them to our scale sessions. (Photo: Karen Swann)

Using the Step Chart as our guide, there are still obstacles to conquer with both the murres (*Uria aalge*) and the puffins (*Fratercula arctica*). Because the two species react differently to the scale, their problems have to be considered separately.

Murres are a challenge to get motivated and participate in a session since they are more comfortable when keeping their distance. Because they are flighty when approached, leaving a scale in their vicinity and walking away gave them the opportunity to investigate the foreign object when they were ready. Murres showed interest in the scale by approaching it and playing with it on their own terms. Eager to eat first thing in the morning, the vitamin fish-toss presented an opportunity to work them towards our goal, rewarding them with their vitamin fish if they took a step closer to the aviculturist tossing it. Incorporating this into the morning routine has shown major progress. Once the murres improved and became comfortable with

both the presence of the scale and approaching for food, they gradually migrated towards a puffin scale session in progress. Eventually they jumped onto the scale themselves.

Puffins are curious and sometimes fearless of foreign objects, making them eager to investigate the new scale. Some are naturals at jumping onto the scale; others are curious but not as confident. For the more distrustful puffins, introducing only the top mat from the scale for them to approach seems less intimidating. As their fears subside, we are able to include the scale with the mat. At this point, some lose their fear while others do not. Adding toys and food for encouragement around and on top of the scale also helps lessen their fears.

Food motivation is the main method used to attract the birds to the scale. Fluctuations in appetites present a challenge. When appetites are low, so is the attendance on the scale. To help control the motivation, rearranging their morning versus afternoon diets from 50%/50% to 40%/60% allotted a larger window between feedings where the birds would be more willing to participate.



After a short period of time, the puffins learned that approaching the mat and standing on it rewarded them with their favorite treat, a silverside.

(Photo: Karen Swann)



(Photos: Karen Swann)

After the puffins were getting comfortable with approaching the mat and standing on it, the scale was added to the targeted area. Adding familiar toys to the session made the new scale object less of a threat.



Once the comfort level was achieved and the birds were confident to jump up on top of the scale, they received their favorite treat, a silverside.

After several sessions, a few birds became more confident in the weighing process and began over-achieving the goal by remaining on top of the scale and expressing aggression towards others. While acting as desensitizing agents giving confidence to those who are shy of the scale, this aggression prevents other birds from participating in the session, resulting in counter productive sessions. In order to alleviate this situation and regain control, introducing an additional scale to the session and diverting the birds' attention would give potential individuals more access. Adding toys in the vicinity also helps divert the attention of those that were more intent on possessing the scale.

As a result of the scale conditioning, we have successfully gotten 57% of our alcid collection to willingly hop up onto the scale; 55/87 puffins and 5/18 murres. We have discovered that puffins four years of



age or younger were our best students with 28/33 or 88%. Puffins that are less than one year old are 12/12 or 100%. Because birds are now approaching the observers, it has made it much easier to take a closer look at the individuals' physical health and overall appearance, as a bonus to recording their weights.

The scale is placed on the floor of the exhibit. A silverside is laid on top of the scale to lure the puffin's interest. During each scale session, the keeper will be within the vicinity of the target area. This way the birds will be comfortable participating in these scale sessions while the keeper is able to record their current weights and reward them as they jump onto the scale.

(Photo by Tricia McDeed)

Weights play an important role in bird husbandry. A weight can determine the growth and development of a chick or young bird. A list of weights throughout the year can be used as a reference tool to compare to a current weight. Because their weights can fluctuate throughout the year due to change in diet, molting, breeding, and raising a chick, it is important to monitor regularly and safely.

Step Chart to a Successful Alcid Weighing Session

Step 1: *Motivation*

Find out what catches the interest of both Murres and Puffins – In our experiment, we found that both toys and silversides were their biggest motivators.

Step 2: *Include a target and make it fun*

Using these motivators, add a target, (in our case a black mat the same size as the top of our scale to be used) placing both toys and silversides on and around the target area. Once the birds approach with their curiosity, they are rewarded by coming within a close proximity or by standing on the mat itself with an additional silverside. This creates a safe and fun "game" for them.

Step 3: *Add scale to target zone*

With the same idea in mind, add the scale within the proximity of these sessions. Depending on the birds' comfort level with this new "foreign object", eventually place the black mat on top of the scale in their safe and fun conditioning sessions.

Step 4: *Attract the more timid birds*

Suspending toys that hang over the scale itself and placing silversides on the black mat on top as well as around the scale will strike interest of the more timid birds.

Step 5: *Keep records*

After a few of these sessions, record individual birds and their weights. Make a list of the "regulars" that are pros at hopping up on the scale. These pro birds will only receive a silverside once they are on top of the scale and stay on long enough to get an accurate weight. For those birds that are more of the spectator type, they will get rewarded by either approaching the scale with a silverside or eating off of the scale without jumping on top of the scale itself. These birds eventually learn from watching the pros and their confidence builds to a successful weight session.

"Trees for You and Me" AAZK Chapter Challenge

By
Christy Mazrimas-Ott, Senior Keeper
Brookfield Zoo/Chicago Zoological Society
Brookfield, IL



First of all, I want to thank all the AAZK Chapters that participated in the second "Trees for You and Me" AAZK Chapter Challenge that ran 1 September 2010-1 March 2011. Over \$15,000 was raised, including the donations that were received after 1 March 2011 towards the Polar Bear Forest® in Wisconsin through the Wisconsin Department of Natural Resources (WDNR). Polar Bears International® (PBI) is also matching the AAZK Chapters' donations so a total of \$30,000 was raised for the Polar Bear Forest this year!

Here is the breakdown of donations by the AAZK Chapters:

	as of 31 March 2011:	as of 1 March 2011:
Brookfield	3982.00	3947.00
Columbus	3377.00	3377.00
Galveston Chapter	2105.00	2105.00
Greater Cleveland Area	1677.85	1677.85
Milwaukee County Zoo	758.00	748.00
Lincoln Park	700.85	700.85
Lion Country Safari	300.00	300.00
Greater Orlando	296.00	296.00
Detroit	265.00	265.00
Greater New Jersey	235.00	235.00
Chesapeake	215.00	215.00
Portland	150.00	150.00
Audubon Park	100.00	100.00
Rocky Mountain	90.00	90.00
Greater Baltimore	85.00	85.00
Greater Houston	81.00	81.00
San Diego	70.00	70.00
Dallas	60.00	60.00
Phoenix	60.00	60.00
Louisville Zoo	50.00	50.00
Roger Williams Park Zoo	50.00	50.00
North Carolina Piedmont	65.00	40.00
Greater Kansas City	202.00	30.00
Southern Ontario Zoo Keepers	30.00	30.00
Utah Chapter	30.00	30.00
New England	29.00	29.00
Indianapolis	25.00	25.00
Oklahoma City Zoo	14.00	14.00
Orange County	200.00	0.00
	\$ 15,302.70	\$14,860.70

The Brookfield AAZK Chapter won the competition with a total of \$3947 donated to plant trees, reduce CO₂, and save polar bears by midnight of 1 March 2010. The donations went through PBI and the trees have been planted in the Polar Bear Forest through the WDNR in Kettle Moraine, Juneau County and the city of Sparta, WI.

Tree planting for the Polar Bear Forest began in Kettle Moraine State Forest in southeast Wisconsin in April 2010. This is a 26-acre parcel on the Northern Unit of the Kettle Moraine State Forest; 25,900 seedlings were planted - 9000 white pine, 3500 red oak, 3500 white oak, 1600 bur oak, 1600 black cherry, 3500 sugar maple, 1600 shagbark hickory and 1600 red maple (2 rows of hardwood and 1 row of conifer). Per Avery Dorland (WDNR) it is estimated that this site will sequester 81.35 tons of CO₂ per year which covers the carbon offset of ~ 4 individuals per year.

The 33-acre Juneau County forest was re-forested with two-year-old red pine (85%) and white pine (15%) at a density of 900-1000 seedlings/acre. The plantings occurred 18-27 April 2011. Finally, on 7 May 2011 in Sparta, WI the community forest restoration began with a diverse mixture of 100 1.5" caliper tree saplings planted to replace ash trees before an Emerald Ash Borer infestation occurred. Pat Murphy from the WDNR was in attendance along with ~100 volunteers from the Sparta community; a total of 600 trees will be planted in Sparta thanks to AAZK Chapter donations.

"Trees for You and Me" goal is to save polar bear habitat by planting trees. The more carbon dioxide we can remove from the atmosphere the greater chance we have of reducing climate change, which is affecting the polar bears' ice habitat they need for breeding, denning and especially hunting. To learn more details about PBI's Polar Bear Forest go to <http://www.polarbearsinternational.org/sites/default/files/PBForestFAQs.pdf>

For more information on how climate change is affecting polar bears go to :

<http://www.polarbearsinternational.org/>

On Arbor Day, The Brookfield AAZK Chapter planted a river birch that was donated by PBI for winning the AAZK Chapter Challenge. They were assisted by the Brookfield Zoo's Grounds Department, and wish to thank the Brookfield Zoo's Creative Services Department that is covering the cost of the plaque for PBI. The tree was planted across from the eagle exhibit at "Great Bear Wilderness". Since the Columbus AAZK Chapter came in a close second place, PBI donated a tree and plaque to the Columbus Zoo and Aquarium, too. The Columbus AAZK Chapter will be planting their tree later this summer near the "Polar Frontier" area to reinforce the messaging already by the exhibit on the benefits of planting trees to abate CO₂ emissions. One hundred per cent of the donations from "Trees for You and Me" went towards the Polar Bear Forest tree planting initiative in Wisconsin.

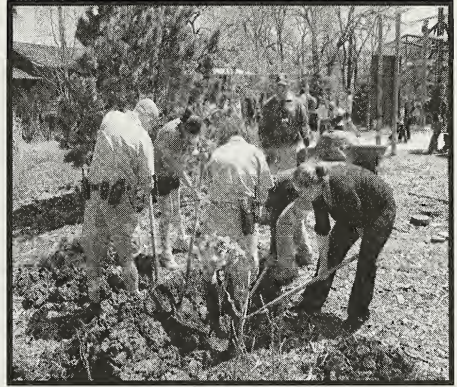
I would like to thank the following for all their support with the "Trees for You and Me" AAZK Chapter Challenge and their help in increasing the number of trees being planted in its 2nd year: PBI with special thanks to Robert Buchanan, Krista Wright, Kathryn Foat, Frances Graham and Amy Shellenberger; the AAZK Board of Directors, especially Shane Good; the WDNR including PBI Arctic Ambassadors Pat Murphy and Avery Dorland; and last but not least all the AAZK Chapters that participated in the Challenge and all the folks that donated \$1 to plant 3 trees to reduce carbon emissions and help polar bears.

There will be another "Trees for You and Me/Polar Bear Forest" AAZK Chapter Challenge this year thanks to all of the AAZK Chapters' stewardship and support. The details are still being worked out, and will be announced during the AAZK National Conference in August. The Challenge will run 1 September 2011 - 1 March 2012.

Tree Planting Images from Chapter Challenge



Wisconsin community tree planting on
7 May 2011. (Photo: Autumn Grooms of Sparta)



Brookfield Zoo Chapter members planting
river birch tree. (Photo by Jim Schulz)



BZ Chapter members pitch in to plant
trees. (Photo by Jim Schulz)



Juneau County Forest tree planting
(Photo: Wisconsin Dept. of Natural Resources)



Preparing tree for planting on the
Brookfield Zoo grounds. (Photo by Jim Schulz)



Chapter teamwork gets the Arbor Day tree
planted. (Photo by Jim Schulz)

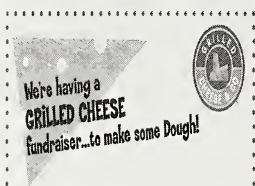


Brookfield AAZK Chapter in front of
river birch planted on Arbor Day for winning
"Trees" 2010-2011. (Photo by Jim Schulz)

Chapter News. . .

Several Small Events Raise Big Bucks for Greater Baltimore AAZK Chapter

The members of the Greater Baltimore Chapter of the American Association of Zoo Keepers, based at The Maryland Zoo in Baltimore, started the year out with several successful fundraising events. The events included a Grilled Cheese & Co. fundraiser, Yankee Candle fundraiser, perfectly timed for



Mother's Day, an animal art auction at a local wine bar and a highly competitive penny jar fundraiser!

Currently, half way through the year, we have already raised over \$1,000 to help fund our keeper travel scholarships as well as the Chapter's monthly enrichment raffle fund. In addition, they hosted a happy hour event to benefit Orangutan Foundation International and donated over \$500 to the organization.

The key to success was reaching a broad audience with a variety of events. Members have really enjoyed the varied events, too! We have two major fundraisers, including Bowling for Rhinos, planned for later in the year along with a few smaller events which include a Dog Wash. For more information about any of these events please contact GBAAZK@marylandzoo.org. - *Claire MacNamara, Liaison*



Bronx Zoo AAZK Chapter

Recently, BZAC had our first fundraiser to support the Turtle Survival Alliance. The event was called "Barnanza - a social night of 'fundraising.'" It was a great success with 50+ people in attendance and other people wanting to donate. We had keepers from three other zoos and aquariums in the area come and support us too! We made over \$1500 to be split between our Chapter and the TSA.

We have been working toward having a 'junior zookeeper enrichment making badge' with nine Girl Scout and Boy Scout troops in the area

and already have had two representatives from our Chapter talk to a Girl Scout troop and have received nothing but positive feedback from the troop and the girl's parents. The girls and their parents even asked if they can take the supplies home to make more enrichment for the animals!

Our dues are due this month, so we will have a good idea on how much active participation we will be getting from our keepers. Another deadline coming up is our deadline for a BFR committee and a National Zoo Keeper Week committee. We are also in the beginning stages of working on a proposal for a chili cook off at the Bronx Zoo.



Last month we selected our new Chapter logo that was designed by Chapter Secretary Dawn Davis. Our zoo's animal keeping staff is made up of members from the mammal, bird, and reptile departments,

the children's zoo, the education department and the wildlife health center staff, so it was very important for us to represent all of our keepers by having a bird, reptile and mammal in the new logo.

For more updates and meeting minutes please check out our website at www.bronxzooaazk.blogspot.com - *Cindy Maur, President*

South Florida AAZK Chapter

New officers elected in December are:
President.....Heather Dunn
Vice-President.....Ivy Brower
Treasurer.....Mike Frushour
Secretary.....Tabitha Miller
Liaison.....Adriana Diaz

April was a busy month with Party for the Planet, Easter Basket sales and Brew at the Zoo. We also created animal paintings for Feast with the Beast. We are donating money to animal conservation and helping keepers attend conferences. Our BFR is July 15, 2011. - *Adriana Diaz, Liaison*



The AAZK Behavioral Husbandry Committee Presents

Training Tales...



Where you can share your training experiences!

*Training Tales Editors – Jay Pratte, Omaha's Henry Doorly Zoo;
Kim Kezer, Zoo New England; and Angela Binney, Disney's Animal Kingdom*

Obstacles in Training A look at overcoming adversity to achieve success

*By
Matthew England, Predator Keeper
Birmingham Zoo, Birmingham, AL*

Introduction

The Birmingham Zoo houses 0.2 North American River Otters (*Lontra canadensis*) in the Children's Zoo. Bernice and Lenora are eight-year-old sisters and are worked protected contact. In order to maximize animal husbandry, keepers used training to establish desired behaviors for proper captive animal management. One of the most important behaviors needed was shifting into a crate/induction tube. This behavior also proved to be the most challenging for a variety of reasons. Between the years of 2007-2010 keepers employed a number of ideas and training methods in search of the best way to train this behavior. There were various obstacles that had to be overcome, and in some cases, methods were tried and then re-tried. Keepers were challenged to be creative and stay focused on the task without getting discouraged, but also had to be patient with the changing dynamics of the zoo.

As trainers we face many different forms of adversity. Often times we encounter problems with the animal being trained, or we find that we have areas we need to improve upon as trainers. However, many times unforeseen circumstances present themselves that we could never have prepared for or anticipated. This paper discusses such circumstances faced by the Children's Zoo keepers at the Birmingham Zoo and how they were able to overcome these problems to achieve success.

Early Challenges

In the spring of 2007, I was a brand new part time keeper only on the job for five months and had no prior zoo experience in training animals. I was brought in as a trainer for the otters, and shortly after, the two primary trainers of the otters left to take positions at other institutions. I had to make a quick transition from a new trainer learning to maintain established behaviors to the primary trainer of new behaviors. Fortunately, I was not alone in this endeavor as many of the full-time keepers in the Children's Zoo assisted in the training and offered advice and help wherever they could.

At the same time, the Birmingham Zoo went through a period of flux. The Children's Zoo hired a new Zoological Manager who also took over managerial duties of the sea lions. A significant amount of her time was dedicated to the sea lions because the zoo debuted the Sea Lion Splash Show that spring. Consequently, otter training could not progress as quickly as our staff would have liked while our resources were spread thin.

It is important to note here that these are expected occurrences in zoos. Turnover of staff happens and

managerial positions will change. It may be necessary to put more time and effort into some areas than others, such as a new animal show or exhibit (usually these happen during the busy seasons of spring and summer). That does not mean that other areas are being neglected. It is our responsibility as keepers and trainers to keep in mind, while our area or animal may not be the top priority [at the moment], it still has importance.

Crate Training – Why It Failed

When we were able to set our training program for the otters into motion, we decided that a high priority for the otters was to train a way to easily transport them as needed. The otters were crate trained by the previous trainers, and had also been trained to go into an induction tube. We discussed which direction we wanted to go and decided to stick with the crate.

There were some benefits to the crate. It was something that had been recently trained and used, thus the otters were willing to enter the crate. It was also much easier to get the otters out of the crate when immobilized. Despite these benefits, however, two major hindrances caused us to strongly reconsider the crate.

The first, and most obvious problem, was the method used to crate the otters. The crate utilized a sliding guillotine door to secure the otters inside and had to be placed inside a small indoor holding [area]. In order to work the door, a string was tied to it, trailed up through the top of the holding, and down to the keeper on the other side. This was a complicated procedure, and since we had to hold the string while cueing the otters into the crate, it made training very difficult. Besides this, the crate was actually too large to fit inside the holding. Because of the size of the otters and their propensity to leave their tail hanging out the door, we had to use a slightly larger crate than normal. As a result, we had to utilize a keeper area to get the crate inside a suitable area in which to train. This whole process took a lot of time to set up and was not a suitable way to continue training, (Figure 1).

Figure 1: Series of steps involved in getting the crate into the keeper area.
(Photo courtesy of Kelly Wall, Birmingham Zoo)



The second problem was that it proved to be an unsafe way to immobilize. In order to immobilize the otters with Isoflurane®, we had to place a trash bag around the crate. This created a visual obstruction preventing us from seeing the course of induction. The crate also had too much room for the otter to move around allowing for the chance of injury (this problem would not have been resolved even if we used a slightly smaller crate; the otters required the smallest space possible for safety). Eventually, the crate itself proved to be destructible as Lenora, particularly stressed after one immobilization, began chewing her way out of the crate! After this intense situation, we decided to immediately change our method.

Training for the Induction Tube – Part 1

The goal of using the induction tube was to create a safer, quicker way to immobilize the otters. The tube consisted of PVC pipe that was 3 ½ feet [~1.067m] long and had a six-inch [15.24cm] diameter. Each end had an acrylic door that was attached on one side by a bolt that allowed the door to be lifted up and down. The doors were secured by zip-ties that slid into holes in the door. Holes in the top of the PVC pipe with hose attachments allowed for placement of Isoflurane gas for immobilization. The tube was preferred because its limited space prevented the otters from thrashing about and possibly injuring themselves. The immobilization process would also be much quicker in a smaller space. However, there were numerous problems with the initial design.

First, the doors were extremely problematic. They could only be lifted and lowered with metal hooks that had to be stuck through the mesh and fit into small holes on the doors. The doors were difficult to operate in this way, and if the otters moved the tube at all, the hooks would come out of the holes and have to be put back in, interrupting the training session. Also, to receive the reward the otter would have to exit the tube. This caused it to want to leave the tube as quickly as possible in anticipation of the reward, instead of feeling comfortable in the tube and staying inside as long as we wanted.

Second, the tube was actually not long enough for the otters to get their entire bodies into. The otters would leave about 3-4 inches of tail outside the tube which was obviously problematic when trying to close the door.

Third, the only place the otters could be trained was in their outside holding area, which was large enough for them to walk away when distracted. This again slowed down training sessions and allowed for the otters to give trainers a “timeout” when they felt so inclined.

Last of all, the PVC was opaque, making it difficult to see the otters once they were actually immobilized. Even though the doors were clear acrylic, it was not easy to see inside the tube. If we weren't sure if they were immobilized, this created hesitancy when the time came to pull the otters out of the tube.

Ultimately the idea of the tube was useful, but the design forced us to abandon it in favor of a training goal with multiple uses.

Injection Training – A Different Kind of Success

Primarily, we chose injection training as an alternate way of immobilizing the otters. We discussed the situation with our Veterinary Staff (the zoo was without a full-time veterinarian at the time), and planned that in the event the otters needed to be transported, we would use an injection to administer the immobilizing drugs. We recognized that this training would have other uses as well. We included giving the otters their annual vaccinations as part of our training goal.

To set up the training area, we obtained a PVC pipe about three feet [91.44m] in length and six inches [16.24] in diameter and cut it in half lengthwise. We attached it to the mesh of one of their inside holdings about 18 inches [45.72cm] from the ground, (Figure 2). The idea was that as the otter entered the pipe; one side of their body would be exposed allowing us to give the injection.

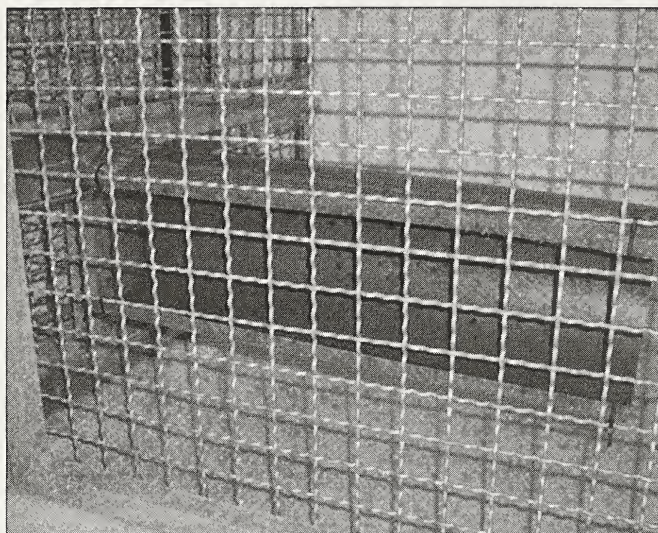


Figure 2: The cut PVC tube used for injection training.

(Photo courtesy of Kelly Wall, Birmingham Zoo)

To train this behavior we utilized several established behaviors. We used “target” to get the otters into the tube (which didn’t take long), and the “hold” command to have them wait until we released them. Eventually “target” was substituted for a new behavior, “set”, which required the otter to target to a ball that hung from the mesh and “hold” until bridged. This freed up the hands of the trainer to do multiple things at once, thus making the injection process easier.

Getting the otters to “hold” inside the tube was the easy part. Next we had to

desensitize them to a disinfectant sprayed on the injection site. Bernice had no problems with this once it became a regular occurrence. Lenora, however, would run out of the tube the instant she was sprayed. So instead we sprayed a paper towel with disinfectant and rubbed it on the injection site, which she tolerated well. After this was achieved, we had to desensitize them to the injection. We started off using syringes with rubber tips and applied hard pressure to their thighs. Again, Bernice received this fairly well, but Lenora would run out of the tube. Trying to touch her slowly with the syringe actually caused her more panic, so I began to give her a quick stick. Surprisingly, she didn’t mind it as long as it was a fast, firm stick. In this way, we were able to get over all of our hurdles and give an actual injection. We used saline solution to simulate a slight sting from an injection. Then in November 2008 we successfully vaccinated both otters for rabies and distemper through this training, (Figure 3).

After a few months, the time was drawing near for the otter’s annual check-ups. We continued to train for an injection in anticipation of using it as the means to immobilize them. As stated earlier, at the beginning of our training the zoo had no on-site veterinarian. In the winter of 2009 the zoo hired a new full-time veterinarian! When we discussed our intent with him on the situation, he preferred Isoflurane® anesthetization over an injection. With Isoflurane®, the vet staff controls the amount of gas and can increase or decrease the amount as needed. His professional opinion on the matter was to avoid immobilization via injection when possible; therefore we would not be using that method on the otters.

While our original intent ended up failing, we did come out of this training with a useful tool that we have continued to use. The otters were again vaccinated in 2009 using injection training and will



Figure 3: Lenora receiving an injection

(Photo courtesy of Kelly Wall, Birmingham Zoo)

probably continue to do so for the rest of their lives. Through our training the keeper is able to give the injection; the procedure is quick, and most importantly, a positive experience for the animal. This training did have great importance in allowing us to increase our husbandry and reduce stress on the animals, but it did leave us back to square one in terms of a successful way to transport the otters.

Training for the Induction Tube-Part 2

When it was necessary to transport the otters we used the crate, but we quickly worked to devise a better solution. We knew that the induction tube was the safest, quickest way to immobilize the otters, but we had to make the set up more functional and the training easier for the otters. We discussed the problems in one of our monthly meetings with the zoo's training consultant, and he suggested a series of modifications that would help us reach our goal.

The most pressing need that had to be addressed was where to place the tube for each training session. Placing it in the holding cage had proven far too difficult in the past for training, so we needed a way to train with the tube outside of the holding area. One of the training areas was modified with an aluminum guillotine door for the attachment of the tube, (Figure 4). When designing the new tube, it would be made to slide into this door and project into the keeper area. This was beneficial in that it gave the trainers more room to train and allowed for the doors to be opened and closed simply, unlike the previous tube.



Figure 4: Otter holding modified with guillotine door for induction tube.

(Photo courtesy of Kelly Wall, Birmingham Zoo)

Having made the shift door, work began on the new induction tube. We used a clear acrylic tube instead of white PVC so that we could see the otters inside. The tube was made four feet long [1.22m], giving the otters plenty of room to fit their entire bodies, including their tails. At one end of the tube, an aluminum sliding guillotine door was fitted. This side slid into the shift door of the holding and served as the entrance into the tube. At the other end, we put aluminum mesh that was sealed and did not open as a door. We used this end to reward the otters while inside the tube. Handles were placed on the tube to make it easy to carry, and hose attachments were placed on top for the

gas to be inserted. A stand was made to hold the tube up at one end and make it an even height with the shift door. The end result was exciting, and we promptly began training, (Figure 5).

We used several techniques to induction tube train the otters. We started off with habituation. The otters were nervous about entering the tube at first, so we gave them access to the tube for limited amounts of time and allowed them to explore it freely. Next we began baiting the tube with a portion of their diet. At first they would grab a piece and squirm back out to eat it. After a few days, they were eating comfortably in the tube. Trainers began asking for established behaviors and used "target" and "hold" to keep them in the tube for longer periods. We then used the "set" behavior so that the otters would "hold" while we stood up and closed the door. Within a few weeks, they were comfortable enough with the tube that we were able to close the door and transport them for their annual check-ups. We finally had an absolute success! Through our modifications, we were able to establish simple training sessions, a positive experience for the otters, and an efficient method of transportation. We are happy with the result and will continue to use our newly made induction tube, (Figure 6).

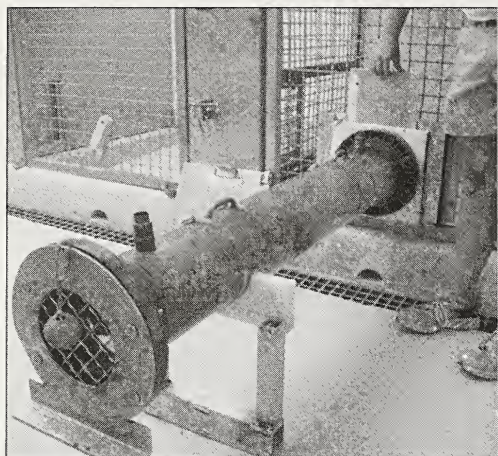


Figure 5: The finished induction tube. Enclosed mesh on one end and a sliding door on the other.
(Photo courtesy of Kelly Wall, Birmingham Zoo)

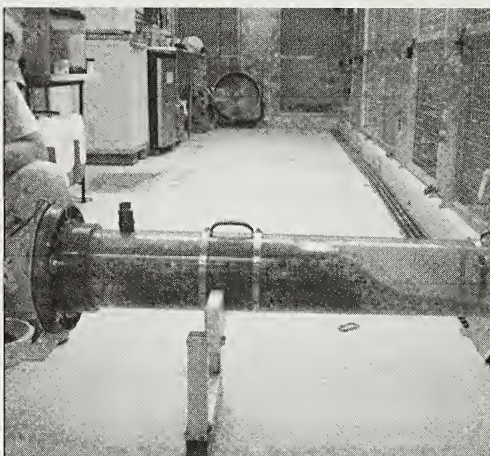


Figure 6: Otter inside the induction tube.
(Photo courtesy of Kelly Wall, Birmingham Zoo)

Conclusions

It was a long journey over three years, and we grew a lot as keepers. But what about you? What can be learned from what we experienced? There are a few points I hope you can take away from this.

First, it may help to take a look back at our situation. Once the zoo was able to get its new personnel into place and set up its new Sea Lion show, we were able to get the proper resources and focus needed to accomplish our goals with the otters. Realize that the institution you work in is a fluid environment. Things are constantly changing in zoos. Turnover occurs that causes a ripple effect of hardship on the entire institution. Sometimes zoos have specific areas of focus, such as new shows or building new exhibits, that may seem to distract from what we feel needs to be addressed. But perhaps those shows or exhibits are bringing in much needed money during a busy season that could later go to areas of need.

Understand that we rarely work in ideal situations. Many times solutions to the problems we face cannot be found in a manual. We have to learn as we go. Also, some institutions experience change more rapidly than others. These changes may require us to adapt much more quickly to situations than we may not have anticipated. The ability to adjust will help us do the best job available for our animals, as well as the institution.

Be ready to make mistakes. Things don't always go the way we plan, and it can be very challenging to correct them. Be ready to fix mistakes when they inevitably come. In just about every area of our otter training there was something we could have done or should have known that impeded our progress. In fact, even with our final success, we still made mistakes. The tube had several gaps and holes that had to be taped over when immobilizing the otters. We also did not keep in good communication with our veterinary staff to get their input on the tube's design. For instance, we could have made the aluminum mesh on the tube removable to make it easier to remove the otter once immobilized. These small mistakes were overlooked but could have been avoided with a little foresight. Don't be afraid to make mistakes. Always look for new ways to improve and create better opportunities for the animals.

Lastly, I hope you learn to never give up. Things can get very frustrating, especially when your solutions fail, but do not be discouraged. Keep pressing forward. We went through several different methods before we achieved success. Each step along the way had its own obstacles that threatened to stop our progress, whether it was problems with the holdings, training, or changes in the zoo.

Success did not come easy, but we persevered. If we as keepers can remain strong willed in our work and do our due diligence, then half the battle is won. When situations are less than ideal, we have to do our best to make things work. We are there for the animals, regardless of what hardships we encounter, and we owe it to the animals to do the best job we can, (Figure 7).

Acknowledgements

I would like to thank Melissa Wright for her leadership and for mentoring me through this process. Thanks to Kelly Wall for her help in training and assisting with this paper. I deeply appreciate Sarah Cook for her assistance in this process and for teaching me so much about training. Thanks to the Birmingham Zoo maintenance staff who did a great job on the modifications. Thanks to Marcia Reidmiller and Dr. Clay Hilton for approving the project and to the veterinarian staff for their help and patience. A special thanks to Steve for his immensely helpful advice and wonderful idea that was the catalyst for our success. And a very special thanks to everyone in The Children's Zoo who had a hand in working with the otters during this time. Without everyone's help this would not have been possible. Thank you!

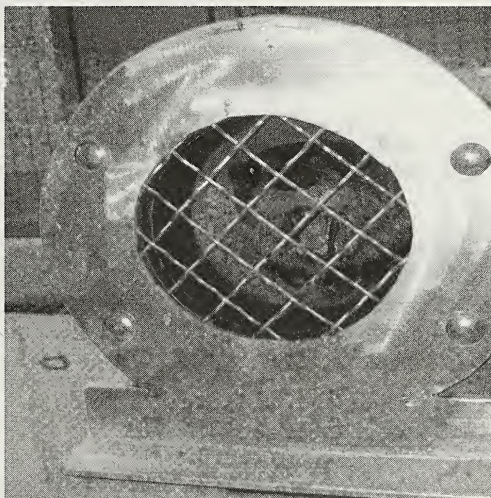


Figure 7: The final product.

(Photo courtesy of Kelly Wall, Birmingham Zoo)

BHC Comments: By Angela Binney and Kim Kezer

This paper illustrates the fluidity of our training and management experiences in the zoological field. We like the way the author includes all of the details of the growth process. So often we see papers that highlight the final product and process, leaving out the trial and error and extraneous details that impacted the overall pathway. Animal keepers do have to be creative and brainstorm solutions to goals quite frequently as each situation has its own factors to contend with. As the author noted here, good communication and team work are keys to success in any training program. Thanks for encouraging all of us to pursue our goals in the best interest of our animal charges!

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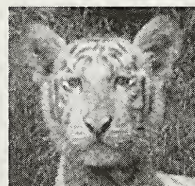
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From Good Care to Great Welfare
Advancing Zoo Animal Welfare Science and Policy
Detroit Zoological Society
August 6-7, 2011

The Detroit Zoological Society's Center for Zoo Animal Welfare is hosting a two-day symposium, *From Good Care to Great Welfare*, which will bring together leaders in animal welfare with the goal of advancing zoo animal welfare science and policy.

Animal care in zoos has improved over the past decades, but good care does not, in and of itself, ensure great welfare. The development of a more thorough understanding of animals in zoos, especially how they are affected by captive conditions - staff, visitors, social and physical environments, and more - is important to ensuring zoo animal welfare. This requires an active dialogue among animal care professionals and animal welfare specialists regarding these issues.

From Good Care to Great Welfare will include presentations, posters and panels focusing on four primary topic areas:

- understanding and bridging the gap between providing good care and ensuring great welfare;
- understanding the impacts of - and compensating for - captivity;
- multidisciplinary approaches and assessment techniques to better understand and enhance zoo animal welfare;
- welfare of "non charismatic" vertebrates - birds, reptiles, amphibians and fish.

Call for papers: We are encouraging the submission of papers and posters presenting original/new research that examines the impacts of captivity on animals and how we can better align animal care practices with great welfare (e.g., impacts of choice and decision-making with respect to social partners, food, space; impacts of different social situations; investigation of different sensory abilities/perceptions of animals and their impacts on welfare). A special edition of the *Journal of Applied Animal Welfare Science* (JAAWS) will publish invited papers and abstracts of all spoken presentations from the symposium.

Additional information and instructions for registering and for submitting abstracts for presentations and posters can be found at czaw.org. Abstracts may be submitted by mail or online until June 15, 2011.

For more information please contact either:

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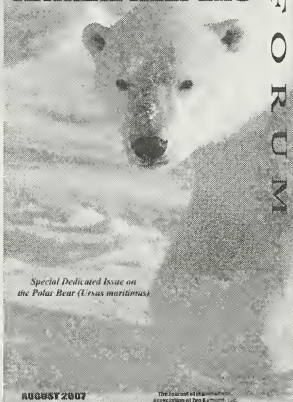


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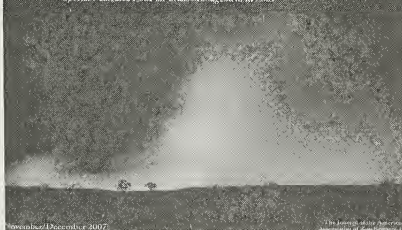


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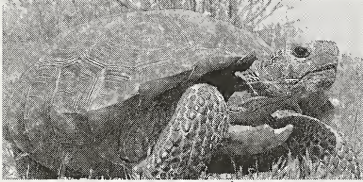
Conservation/Legislative Update

Column Coordinators: Becky Richendollar, North Carolina Zoo
and Greg McKinney, Philadelphia PA

This month's column was put together by
column co-coordinator Greg McKinney



Thirty-Six Desert Tortoises Relocated to Mojave - San Diego researchers have relocated 36 desert tortoises (*Gopherus agassizii*) to a new home—but they'll keep in touch. The tortoises were released into the Mojave Desert from a conservation center near Las Vegas. They have radio transmitters on their backs, and 24 also carry GPS units. The devices will help researchers at the San Diego Zoo Institute for Conservation Research gather information about the movements of the animals, which are considered threatened in the wild. Source: *The Associated Press*, 29 April 2011



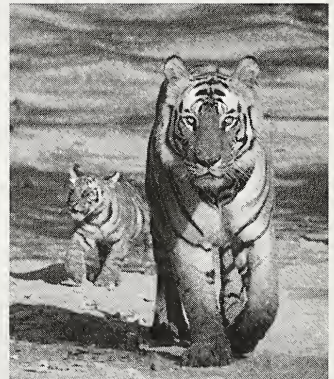
Desert Tortoise
(Photo: USFWS)

Roads Planned for One of Asia's Most Important National Parks for Tiger Conservation - Indonesia

is preparing to greenlight the construction of several highways through a park that has one of the world's few viable populations of wild tigers (*Panthera tigris*), conservationists have warned. The move would be especially alarming, they said, because it would come just months after the government signed a deal in Russia promising to do everything possible to save the iconic big cats from extinction. There are about 3,500 tigers left in the wild worldwide. The Kerinci Seblat National Park, which spans four provinces on Sumatra island, is home to an estimated 190 of them — more than in China, Vietnam, Nepal, Laos and Cambodia combined.

"We need to do everything possible to stop this," said Mahendra Shrestha of Save the Tigers in Washington D.C. "It would be disastrous to one of the core tiger habitats in Asia." The plans for four roads through the park would open up previously inaccessible land to villagers and illegal loggers, divide breeding grounds and movement corridors, and destroy vulnerable ecosystems. Shrestha said it makes a "mockery" of the agreement signed by 13 countries that still have wild tigers to preserve and enhance critical habitats as part of efforts to double populations by 2002.

The 1.4-million hectare Kerinci Seblat Park, which is divided by the Barisan mountain range and fringed by oil palm plantations as far as the eye can see, also is home to critically endangered Sumatran rhinoceros (*Dicerorhinus sumatrensis*), elephants (*Elephas maximus*), clouded leopards (*Neofelis nebulosa*), sun bears (*Helarctos malayanus*) and more than 370 bird species. It also has more than 4,000 plant species. The Forestry Ministry, which would have to sign off on any deal and request parliamentary changes to Indonesian law on protected land, has remained tightlipped about the plans except to say building roads for development in protected areas is illegal. "It's still just a proposal," ministry spokesman Masyhud, who goes by one name, told The Associated Press.



Female Tiger and Her Cub in
Bandhavgarh Tiger Reserve
(Photo: Mayankkatiyar/Wikipedia.jpg)

Still, conservationists are worried because regional leaders — who increasingly hold sway in the nation of 237 million — are pushing the plans. With no visible pushback from the central government, the regional leaders may have little problem bulldozing through their proposal. Provincial officials in Jambi, Bengkulu and West Sumatra argue that four roads up to 40 feet (12 metres) wide are needed

in the park to serve as “evacuation routes” for people in the event of volcanoes, earthquakes, flooding and other natural disasters.

“We fully understand the importance of this national park and will do everything to make sure that the environment is not destroyed,” said Nashsyah, head of Bengkulu’s development planning board, adding that a comprehensive study still needs to be done to educate all parties about the project.

Two-thirds of the tigers in the Kerinci Seblat Park are adult females. It is one of the few places where populations have actually grown over the last five years, thanks largely to untouched habitat and anti-poaching patrols that have helped protect one of the few genetically viable populations left in the world.

There already are four roads through the park. The construction of new, larger highways would bring in tons of heavy equipment, chain saws and hundreds of workers for months on end. “These roads would further fragment tiger communities and disrupt their movement corridors,” said Zen Suhadi of Indonesia’s most prominent environmental group, Walhi. “That’s our main concern.” He is among 350 conservationists from dozens of different national and international nongovernment groups that have banded together to argue that the plans would turn Kerinci Seblat into a mishmash of forest blocks putting both tigers and their habitat at risk. If approved, they say, it would open the way for road building in every protected area in Indonesia. *Source: The Associated Press, Ali Kotarumalos, 28 April 2011*

Hawaiian Endangered Bird Conservation Program Recognized for Propagation Achievements - The San Diego Zoo Institute for Conservation Research has received the 2011 Plume Award for long-term avian propagation programs for its work with critically endangered Hawaiian birds. The award was given in March by the Avian Scientific Advisory Group (ASAG) during a session at the Association of Zoos and Aquariums (AZA) conference. The Zoo’s Hawaii Endangered Bird Conservation Program (HEBCP) is a species recovery effort in collaboration with the State of Hawaii Division of Forestry and Wildlife and the U.S. Fish and Wildlife Service. The program uses captive breeding and reintroduction to prevent extinction and promote species recovery through the reestablishment or augmentation of existing bird populations. Its restoration activities provide a strategy to preserve options while habitat is secured and the plummeting populations of wild birds are managed and stabilized. The HEBCP manages two captive breeding facilities: the Keauhou Bird Conservation Center (on the Big Island of Hawaii) and the Maui Bird Conservation Center. *Source: Imperial Valley News, 26 April 2011*

Prisoners Help Threatened Species Make a Comeback - A special group of workers in Washington state is saving a threatened species. Their efforts have stunned researchers. And what’s even more surprising to some is the unusual lab where the effort is taking place. Harry Greer is one of those workers. He works hands-on with 100 tadpoles, providing them with constant care so that they’ll grow into adult Oregon spotted frogs (*Rana pretiosa*) - a dwindling species that is a candidate for the endangered list. Greer is helping to bring the frogs’ numbers back up - but he’s no biologist.

“I used to sell drugs and run hookers in motels,” he says matter-of-factly. Greer is an inmate behind the fence and barbed wire at Cedar Creek Correctional Center. He’s now senior caretaker of the prison’s endangered frog program. “It’s given me a whole different outlook on life,” he says. “I know there’s more to life than the streets.” The same is true for Taylor Davis, who was locked up four years ago for car theft. “It gives me something to be good about every day,” he says. “You know, I wouldn’t want to lose this.”

Cedar Creek is a model for sustainability, already into organic gardening and composting - and that’s why The Evergreen State College and the state Department of Fish and Wildlife chose it to raise frogs. The amphibians will eventually find a home in the Joint Base Lewis McChord wetlands - a fragile ecosystem that is being rebuilt. Zoos also raise the frogs for release - but it’s the ones from Cedar Creek prison that are flourishing.

“There’s so many programs that can be done by inmates, it’s really infinite,” says Marko Anderson,

director of the program. Anderson says the prison frogs are healthier and have higher survivability rates because the inmates give them constant care - with regular feeding and fresh water. Researchers now come to them for advice.



Oregon Spotted Frog
(Photo: USFWS)

Greer gets out of prison in December, and he hopes to continue his work at a zoo. Helping frogs find their own freedom has changed his life. "I think, 'What part of the chain of life is this animal in?' - you know what I mean? Now everything to me is the chain of life," he says. The frogs should be fully grown by November or December - and that's when they'll be released into the wetlands. *Source: Kval.com, John Flick, 2 May 2011*

Eggs Head for the Hills in Project to Save Endangered Frog Species - Deep in the Snowy Mountains a helicopter lands on boggy ground, bearing three scientists and their precious cargo of

100 frog eggs. The tiny, delicate balls are the offspring of the southern corroboree frog (*Pseudophryne corroboree*), one of the most endangered animals in the world. In an attempt to save the species, which is being wiped out by the chytrid fungus, scientists from the Department of Environment and Heritage have developed a breeding program with Taronga Zoo.

After a seven-hour drive from Sydney, and a cold night in a hut in the mountains, the eggs are placed in ponds designed to prevent frogs with the fungus from depositing their eggs there. The co-ordinator of the exercise, David Hunter, a departmental threatened species officer, said the species was at the "pointy end" of extinction in the wild. Fewer than 100 can be found in their natural habitat. Without the breeding program this tiny black-and-yellow striped frog would vanish in less than three years, Dr. Hunter said.

The aim is to keep a population of the frogs in the wild long enough for them to develop resistance to chytrid fungus. Before the fungus, a pathogen that lives off compounds in frog skin, was introduced in the 1980s, tens of thousands of southern corroboree frogs could have lived in the Snowy Mountains region.

The supervisor of the herpetofauna division at Taronga, Michael McFadden, said eggs had been collected in the wild and hatched at Taronga and Melbourne zoos. Of releases in the past four years, at least half of the eggs have reached adult stages. Whether they have survived after that is unknown. It takes four to five years for southern corroboree frogs to reach sexual maturity, so the team will not be able to measure the success of their program until the first group of frogs return to their hatching area to breed. However, its members are sure that corroboree frogs will flourish again. "The zoos have been so successful breeding eggs I feel confident we will re-establish good-sized populations out here in the wild," Dr. Hunter said. *Source: The Sydney Morning Herald, Nicky Phillips, 3 May 2011*



Southern Corroboree Frog
(Photo: by Andrew c_wikipedia.jpg)

Bolivia to 'Make World History' by Granting Rights to Mother Nature - Bolivia is preparing to pass a new law that could lead to citizens challenging environmental destruction in court. A Ley de Derechos de la Madre Tierra (The Law of Mother Earth) would grant nature the same rights as humans, according to The Guardian. The country will establish 11 new rights for nature, including: the right to exist, the right to continue natural cycles, the right to clean water and air, the right to be free of pollution, and the right not to have cellular structures altered or genetically modified. The law will also give nature the right "to not be affected by mega-infrastructure and development projects that affect the balance of ecosystems and the local inhabitant communities."

"It makes world history," Bolivian Vice-President Alvaro García Linera said. "Earth is the mother of all. It establishes a new relationship between man and nature, the harmony of which must be preserved as a guarantee of its regeneration."

The law enjoys the support of Bolivian President Evo Morales and his Move Toward Socialism party. Not coincidentally, he is Latin America's first indigenous president. As a part of the indigenous Andean philosophy, the earth deity known as the Pachamama is at the center of all life. Bolivian Foreign Minister David Choquehuanca has said that respect for Pachamama is important in the prevention of climate change, which threatens to disrupt Bolivia's way of life.

"Our grandparents taught us that we belong to a big family of plants and animals," he said. "We believe that everything in the planet forms part of a big family. We indigenous people can contribute to solving the energy, climate, food and financial crises with our values." *Source: The Raw Story, David Edwards, 12 April 2011*

Richard Branson to Create Sanctuary for Lemurs - 8,000 Miles from Their Home - Sir Richard Branson has triggered a conservation row over a plan to import lemurs to the Caribbean, half a world away from their natural habitat in Madagascar. The British entrepreneur said ringtailed lemurs (*Lemur catta*) would be transported and released into the rainforest of Moskito island, a tropical hideaway he owns in the British Virgin Islands. Branson said he wanted to help conserve a species threatened by deforestation in Madagascar, off Africa's Indian Ocean coast, where political turmoil has accelerated illegal logging. "We have had a lemur project in Madagascar the past few years and seen that things are getting worse for them so we thought about finding a safe haven," he told the Guardian. "We brought in experts from South Africa to Moskito island and they said it would be perfect."



Ring-tailed Lemur
(Photo: Alex Dunkel_wikipedia.jpg)

But other experts say the introduction of an alien species from 8,000 miles away could harm the

lemurs and local wildlife. The International Union for the Conservation of Nature's species survival commission told the BBC the project could contravene its code for translocations and said the harm from introducing species outweighed benefits. Other experts said it was too soon to judge. "It could be a brilliant or terrible idea but we just don't know yet," said Penelope Bodry-Sanders, the founder of Lemur Conservation Foundation, a Florida-based group which has a sister reserve in Madagascar. "We don't know what pathogens the lemurs will bring to the Caribbean or what pathogens they will receive. It is great that Mr Branson cares, and he has a history of acting responsibly, but we need more information. The jury is out on this."

Branson said the lemurs would come from zoos in Canada, Sweden and South Africa, not Madagascar, and that an environmental impact assessment had been carried out on Moskito, part of a 60-island archipelago. Its 50 hectares are home to the stout iguana (*Cyclura pinguis*), the turnip-tailed gecko (*Thecadactylus rapicauda*) and the dwarf gecko (*Sphaerodactylus ariasae*), among other reptiles. If lemurs thrive on Moskito, it is hoped that some can later be reintroduced to Madagascar. Branson bought the island in 2007 for £10m and pledged to turn it into the world's most ecologically friendly resort. Authorities on the British Virgin Islands have approved the plan and the first shipment of 25 ringtailed lemurs is due within weeks [of this writing]. The red-ruffed lemur (*Varecia rubra*) is expected to follow, possibly followed by another primate, sifakas, genus *Propithecus*. Bodry-Sanders said the red-ruffed lemurs, which are among the most at risk in Madagascar, could suffer from the Caribbean heat but said the ringtails could thrive in it.

British Virgin Island residents are more concerned that indigenous plants and wildlife, especially insects and birds' eggs, could suffer from "opportunistic predators" who are adept at leaping, clawing and munching. "This monkey business shows a distressing disregard for the advice and concerns expressed by both local and international scientists," said one commentator on BVInews.com. Another message said: "Those lemurs will spread to other islands in no time and then what?" Critics accused the island authorities of bowing to a powerful investor. Branson acknowledged there were risks but said experts had advised they were minimal compared with the upside of "saving a species that was dying out".

Fears for Moskito's gecko population were misplaced, he said. "Lemurs eat mostly nuts and plants. If they eat the occasional gecko, well there are literally thousands and thousands of them." Local species would be protected if they turned out to be threatened by the new arrivals, he said. "We will have to play it by ear. If this works out well, we will bring in more lemur species and eventually hope to find a bigger island for them." *Source: the Guardian, Rory Carroll, 18 April 2011*

Lawsuit Launched to Speed Recovery of Imperiled California Amphibians - The Center for Biological Diversity has filed a formal notice of intent to sue the Interior Department for failing to develop recovery plans for the Southern California mountain yellow-legged frog (*Rana muscosa*) and the California tiger salamander (*Ambystoma californiense*). Although these amphibians have been protected under the Endangered Species Act for about a decade, the U.S. Fish and Wildlife Service has yet to develop legally required recovery plans to guide management of the species.

"If the government is serious about its legal responsibility to save these rare frogs and salamanders in California, it needs to stop dragging its feet and get to work on developing a roadmap for their recovery," said Collette Adkins Giese, the Center's herpetofauna attorney. "Every day without a recovery plan is a day these species are left without the help they badly need."



California Tiger Salamander

(Photo: John Cleckler_USFWS.jpg)

Nearly 20% of all U.S. species protected under the Endangered Species Act lack recovery plans. To date the Obama government has only completed original recovery plans for 18 species, for a rate of nine species per year. In contrast, President Clinton completed 599 plans for a rate of 75 per year. The first Bush completed 150 plans for a rate of 38 per year and the second Bush completed 147 plans for a rate of 18 per year.

"The U.S. Fish and Wildlife Service has been without a pulse for nearly a decade and needs

resuscitation," said Adkins Giese. "We had hoped the Obama administration would reinvigorate the endangered species program, but that has not yet happened."

Recovery plans are the main tool for identifying actions necessary to save endangered species from extinction and eventually remove their protection under the Endangered Species Act. Research by the Center has found that the status of species with dedicated recovery plans for two or more years is far more likely to be improving than of those without. Timely development and implementation of recovery plans is critical to saving species because they identify all of the necessary actions to save the species, such as research and habitat restoration and protection.

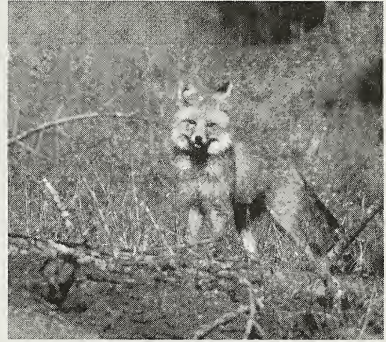
"Exotic predators and habitat destruction are pushing California tiger salamanders and Southern California mountain yellow-legged frogs to the brink of extinction," said Adkins Giese. "These animals have been on the endangered species list for about a decade and are still in trouble. The Service must act quickly to develop and implement plans to ensure that we are taking all steps necessary for their survival and recovery." *Source: Center for Biological Diversity, 28 April 2011*

Endangered Species Act Protection Sought for Sierra Nevada Red Fox - The Center for Biological Diversity has filed a petition with the U.S. Fish and Wildlife Service to list the Sierra Nevada red fox (*Vulpes vulpes necator*) as threatened or endangered under the federal Endangered Species Act. Native to remote, high elevations of the Sierra Nevada and Cascade mountains of California and Oregon, the Sierra Nevada red fox is now known to occur in only two perilously small populations near Lassen Peak and Sonora Pass, which represent about 4 percent of its historical range.

"There probably aren't more than 50 Sierra Nevada red foxes left, which ranks them among North America's rarest and most extinction-prone mammals," said the Center's Taylor McKinnon. "The Endangered Species Act offers their best hope for recovery."

Until last fall, the fox was thought to be confined to one relict population near Lassen Peak. Using remote camera monitors, biologists detected three foxes near Sonora Pass last August and September. Genetic tests of saliva confirmed that they were Sierra Nevada red fox. The Sierra Nevada red fox has been listed as a threatened species under the California Endangered Species Act since 1980. In 2010 researchers extended the subspecies' historical range northward through Oregon's Cascade Mountains to the Columbia River. The last possible sighting of a Sierra Nevada red fox in Oregon occurred in 2001.

"The California Department of Fish and Game has had 31 years to recover this rare fox," said McKinnon. "The fox's perilous condition shows the failures of California's recovery efforts and underscores the need for a consistent, range-wide federal recovery plan."



Sierra Nevada Red Fox

(Photo: Keith Slausen_US Forest Service)

The fox is threatened by domestic livestock grazing, off-road and over-snow vehicles, logging, a disease related to fish-stocking, competition and predation by coyotes (*Canis latrans*), and shrinking mountaintop habitat in the face of global warming. The U.S. Fish and Wildlife Service has 90 days to decide whether the petition presents enough information to warrant possible federal protection for the fox. *Source: Center for Biological Diversity, 27 April 2011*

Congress Pulls Wolves off Endangered Species List - Congress has approved a budget bill that includes a rider removing wolves (*Canis lupus*) in Montana, Idaho, Washington, Oregon and Utah from the federal Endangered Species List and sets the stage for near-term delisting in Wyoming. The measure returns control of wolf management to the states. The votes mark the first time that Congress has directly removed federal protections from an endangered species, circumventing the science-based process of the Endangered Species Act. The rider was introduced by Senator Jon Tester, a Montana Democrat, and Representative Mike Simpson, an Idaho Republican, and approved by Democratic leadership in the U.S. Senate.



Grey Wolf at UK Wolf Conservation Trust

(Photo: Retron_wikipedia.jpg)

"This is more than a victory for Montana," said Senator Tester, who chairs the Congressional Sportsmen's Caucus. "It's a win for rural America, for jobs, and for our wildlife - and it's what's right for the wolves themselves. This was never going to get done with partisan games or grandstanding. We fixed this problem with Montana values - by putting aside our differences and working together on a responsible, common sense plan."

Montana Governor Brian Schweitzer praised the delisting, saying, "Enough is enough. Montana must have the ability to manage wildlife, to do our job, to seek a balance among predator and prey. We need the authority to respond to the challenges wolves present every day. This is a common sense measure that will ensure good management of wolves through Montana's existing plan, which allows for healthy numbers of wolves and

safeguards the interests of ranchers and sportsmen."

Rodger Schlickeisen, president of Defenders of Wildlife, said, "What Congress has done today at the request of Senator Tester and Representative Simpson is unforgiveable and marks a low point in the recent history of wildlife conservation. Never before has Congress stripped Endangered Species Act protections for one particular species, putting politics above sound science and our national commitment to conserving America's wildlife. This provision sets a terrible precedent that could be regarded as an invitation to other legislation to strip protections for any other endangered species that a politician finds inconvenient to protect." *Source: Environment News Service, 14 April 2011*

Idaho Resumes the Sale of Wolf Tags after Predator Removed from Endangered List

- Hunters aiming to bag a gray wolf (*Canis lupus*) this year can once again buy a tag from the Idaho Department of Fish and Game. The state wildlife agency started selling tags for \$11.50 to Idaho residents one day after the predators were taken off the endangered species list. Out-of-state hunters will have to shell out \$186 for a wolf permit. The decision to delist puts wolves under state management, and Idaho officials are now setting quotas and rules for this season's wolf hunt. Hunters took the backcountry two years ago to hunt wolves after the predators were delisted the first time. Hunters killed 188 wolves during that first public hunt, short of the state limit of 220. Officials in Montana are also gearing up for a wolf hunt this fall. *Source: Associated Press, 6 May 2011*

USFWS Releases Annual List of Foreign Candidates Under Endangered Species Act

- The U.S. Fish and Wildlife Service released its Annual Notice of Review of Foreign Species, a yearly appraisal of the current status of foreign plants and animals that are considered candidates for protection under the Endangered Species Act (ESA). Currently, there are 5,594 foreign species listed under the ESA, compared to about 1,371 species native to the United States. The Service designated 20 foreign species as candidates for ESA protection. Candidate species are those for which the Service has enough information on their status and threats to propose them as threatened or endangered, but developing a proposed rule to add them to the federal lists of threatened and endangered wildlife and plants is precluded by higher priority listing actions.

All candidates are assigned a listing priority number based on the magnitude and imminence of the threats they face. In many cases, habitat loss and degradation is the most significant threat to these species. The complete notice and list of proposed and candidate species that appears in the *Federal Register* and can be found online at <http://www.fws.gov/endangered/what-we-do/international-activities.html>.

By listing foreign species under the ESA, it can generate conservation benefits such as increased awareness of listed species, research efforts to address conservation needs or funding for in-situ conservation of the species in its range countries. The ESA provides for limited financial assistance to develop and manage programs to conserve listed species in foreign countries, encourages conservation programs for such species, and allows for assistance for programs, such as personnel and training.

Grant opportunities exist for critically endangered species that face an extremely high risk of extinction in the immediate future. To find information on the Service's Wildlife Without Borders-Critically Endangered Animals Conservation Fund, please visit http://www.fws.gov/international/DIC/global/critically_endangered_animals_conservationfund.html. *Source: USFWS, 3 May 2011*

World's Oldest Panda Dies at 34 - It has been reported by the Chinese state media out of Beijing that Ming Mng, the world's oldest panda has died at the age of 34, has died of complications from old age and kidney failure. She had been living at a zoo or preserve in Guangdong province.



The China Panda Protection Center in Sichuan province said in a statement she died on 7 May, but it was not reported in local media until 17 May. No further details on her death were announced as of this writing. The newspaper said wild pandas live 15 years on average and captive ones 22 years.

Giant pandas are among the world's most endangered species, with about 1,600 in the wild. More than 300 are in captivity in China, most in a breeding program aimed at boosting the species' population. In this photo taken Aug. 21, 2009 Giant panda Ming Ming eats bamboo leaves at the Xiangjiang Safari Park in Panyu in Guangzhou in southern China's Guangdong province.

(Photo: China Panda Protection Center)

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